FLAMING RIVER

HUGH McALISTER

Bobbie
From
Madeline & Elmer.

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Together they dragged a man to safety, half suffocated, but not seriously burned.

FLAMING RIVER

The Story of an Intrepid Boy Who Developed a Petroleum Field

by

HUGH MCALISTER

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"CONQUEROR OF THE HIGHROAD," "STAND BY"
"STEVE HOLWORTH OF THE OLDHAM WORKS"
"THE FLIGHT OF THE SILVER SHIP"
"A VIKING OF THE SKY"

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FLAMING RIVER

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Flaming River

CHAPTER I

THE McDOUGALS OF HARD-ACRES FARM

Jan was only a few steps in front as they came around the bend in the hill path, so when she stopped short her brother bumped into her.

"Hey, why don't you get out of the way?" he grumbled good-naturedly, turning aside to pass.

But she caught him by the arm and pulled him back, crying excitedly as she pointed through the trees, "Look—the boundary fence —it's moved!"

"Got right up and walked off by itself," Rod teased disbelievingly. "Remarkable fence—always has run around the farm. Now it's learned to do a side step too."

"Oh, don't be so silly!" But Jan's black eyes were admiring. "You know what I mean. Somebody's moved the fence. It used to be on the other side of that clump of oaks; now it's on this."

Investigation not only proved that the crude barrier of split rails had been tampered with, but also gave a hint of who had done the tampering. On the newly acquired ground on the other side of the fence a gaunt red cow, tethered to a stake, was ravenously devouring every blade of grass within the radius of her short rope.

"It's those meddlesome Coontses again!" Rod was usually even-tempered, but now an angry color flushed up to the roots of his sandy hair. "Dad gave 'em permission to cut grass on this strip of meadow; we never bring our stock down here anyhow. But old Nat found it easier to move our fence and let his cow cut her own grass, plague his lazy hide! If I had him here, I'd tell him—"

"Yes, you would!" Jan grinned impishly. "You talk mighty big now, but in about half a minute you'd feel so sorry for that poor cow with all her ribs showing, that you'd tell Nat Coonts to take all the grass land he wanted, and help him move the fence back besides. I know you!"

"Who's talking big now?" Rod threw a handful of leaves at her as she ran from him. "Better hustle on down to the spring and fill your bucket. Granny'll be wanting her liniment."

"You're coming too," the girl insisted. "You promised to help."

"Sure, I'm coming," he nodded, and they continued on their way together.

Roderick was the oldest and Janet was the youngest of the McDougal children, and they were the best of pals, though he had already passed twenty-one and she had just arrived at eleven. In between them came Susan, who was married and lived in Blacksburg; Flora, who was the golden-haired beauty of the family; and Little Joe, whose real name was Joel, after his father, but nobody called him that. Granny, dad, mother, and Uncle Angus made up the rest of the household.

For four generations the McDougal family had occupied this farm on Rainbow River. Of Scotch-Irish origin, emigrating to America while still a boy, Corporal McDougal, of the first generation, had received these two hundred acres beyond the Allegheny as "Donation Land" from the Government, because of his military service during the Revolution. In spite of its rugged wildness, he and his wife had made a living out of their land, and at their death had passed it on to their son, Thomas, who in turn had passed it on to his son, Joel, Rod's and Jan's father. But Mr. Joel McDougal, lacking the vitality of his

pioneer forebears, had not proved equal to the struggle of wresting a livelihood from the reluctant soil, and frequently his household had felt the pinch of poverty. Lately he had almost given up his attempts at farming, devoting his time to operating a salt well and selling the salt in Blacksburg, a small town about twenty miles down the river. Even this source of income, however, permitted few luxuries, the family having to continue living the simple life, growing their food in the garden and grain patches, cutting their fuel from the wooded hills behind the house, and making for themselves the things that were necessary for their comfort and pleasure.

Rod's and Jan's errand now had to do with an article of home manufacture. For some days, Granny, their father's mother, had been suffering with rheumatism, so this afternoon she had delegated them to bring her a bucket of oil from Rainbow Spring so she could make a liniment to rub on her aching joints.

Both Rainbow Spring and Rainbow River, into which the spring flowed, had received their names from an oily matter which rose to the surface in small globules, then broke into expanding circles which reflected the

light in a multiplicity of colors, first yellow and purple only, then rose and blue and green. From early times this oil had been prized for its medicinal virtues, for easing rheumatic pains, for curing old ulcers, and there was a tradition that before the white settlers had discovered its value, the Indians had known and made use of it. Finding the Indian Oil, as he called it, a useful household remedy, Corporal McDougal had facilitated the manner of collecting it by digging a small pit about the spring and cribbing it with cedar logs, which remained in a good state of preservation for the use of his descendants.

"Here's the flannel. It's awful greasy." As Janet took the bundle of cloth out of the bucket, her nose lifted in disgust. "And smelly, ugh!"

Roderick laughed. "Not as sweet as a rose, but I don't mind it. Smells clean, anyhow. You stay up here, and I'll fill the bucket. No, I don't want you to come," and he descended into the narrow ravine where the spring was situated.

From her perch on a fallen log the girl watched him carefully spread the square of cloth over the surface on which the oil floated. The flannel would reject the water but would soak up the oil, and then he could squeeze it

out into the bucket. This primitive blanket method of gathering the Indian Oil had been in use long before Granny's time and, if prolonged, it was a back-breaking, tedious job, but for getting only a small quantity it wasn't so bad.

Pride was in Janet's eyes as they followed her brother's movements. She thought him much handsomer than Little Joe, who was thin and dark like herself. Rod's hair was light, his eyes blue as the sky, and he walked with the proud carriage of a Highland chief. It pleased her to imagine that Rod was a Highland chief, like those Granny sang about in her old ballads. Then the tiny scar above his left eyebrow, the only blemish she'd concede, would cease to be a blemish and become a mark of valor borne away from some battlefield.

While Roderick was waiting for the cloth to become saturated with oil, he came up and sat on the log by his sister. The beauty of the late summer afternoon, the play of sunshine and leaf-shadow upon the bold outline of the hills, upon the shining mirror of the water, awed him into silence. For a long time his thoughts followed his gaze and lost themselves amid the wooded slopes that led down to the river. Then he suddenly jumped to his

feet. "Great catfish!" he exclaimed. "Sleeping on my job!" And he rushed down to the spring to squeeze out the flannel.

Her desire for companionship overmastering her dislike of the pungent smell, Janet followed him, and chatted while he worked.

"Where do you reckon this stuff comes from? Out of the ground? There's a little oil spring over on Hyler's place, you know. Other day Uncle Angus asked Mr. Hyler why he didn't dig his spring deeper to get more oil, and Mr. Hyler got mad and said, 'What sort of fool do you take me for, to dig a hole so the oil could get away through the bottom?' Do you guess it would run out backwards? Do you—"

She stopped abruptly as a slovenly looking couple appeared on the far side of the ravine, following the path that came up from the river.

"Yes, siree." The man was talking loudly as he walked on ahead. "I seen that very thing happen down in Arizony. One night I dropped into Two-gun Smith's pl—"

"Shut your mouth, Nat Coonts!" the woman snapped, hurrying to catch up with him. "Don't you see them McDougals down at the spring? Don't you be telling 'em—nothing!"

Mr. Coonts glanced around in a fright, then scurried on out of sight beyond the trees. With a cool nod to Jan and Rod, his wife followed him.

"Wonder what secret Mrs. Coonts is hiding?" Janet broke into subdued giggles. "Old Nat never can open his mouth but what she begins to hush him up."

Roderick didn't answer. He had already forgotten about the Coontses as he stooped to fish out the flannel to wring it dry again.

After a while the bucket was full and he was ready to go home.

"Let's go back by the river path," begged Jan. "It's longer, but I like to walk that way."

So instead of turning back up the hill, the two headed on down the ravine.

When they reached the bluffs they found the usually placid river swollen to a turbid flood, strips of bark, leaves, even small branches of trees swirling crazily about on its foam-flecked bosom.

Janet let out a little shriek. "A pond freshet! We're just in time to see it. Look—look—there they come!"

A huge log raft, manned by three half-grown boys, shot around a rocky point and came careening down the stream, the boys

clumsily guiding it by means of long poles.

Lumbering was one of the Hyler boys' spare-time occupations, their father owning a large tract of timber land. During the heavy fall and spring rains they floated logs down to the sawmill at Blacksburg. During the dry seasons, Rainbow River dwindled to almost nothing, so recently they had resorted to artificial floods to assist transportation. They had built a dam and stored up the water until a raft was ready. Then they opened the sluice-gates and rode their logs downstream to the mill, regardless of the season.

Jan was hopping up and down in excitement. "Look at 'em!" she screeched. "Oh, I bet that's fun! Wish I was on there!"

Rod watched the raft as long as it was in sight. He too was wishing he was aboard. Several times he had helped the Hylers pilot down a shipment of logs, and he knew the thrills of the trip, the dangers of capsizing, grounding, as well as the pride of bringing the raft in safely.

When the Hylers and their unwieldy craft had disappeared, the McDougals quickened their steps toward home. The lengthening of the afternoon shadows had reminded Rod of some barnyard chores to be done. But as they emerged from the woods into the home

clearing they came to an abrupt standstill, half-alarmed by the unnatural stillness that hung over the place.

Suddenly there came the sound of excited voices, and Flora calling, "Rod, oh Rod, come home!"

"What is it?" gasped Jan, her face paling.

"Don't know!" Rod broke into a run, heedless of the oil splashing on his clothes. "Got to find out!"

CHAPTER II

A BUSINESS VENTURE

The front yard was deserted. Around the house they ran to the kitchen porch. There they found a dejected family group, the women huddled on the steps, their eyes on Mr. McDougal, who was talking and gesticulating excitedly. Off to one side Uncle Angus and Little Joe bent above a small tub, stirring its contents with a stick.

"What's the matter?" shouted Rod. "You called me—"

Mr. McDougal turned about, grief and despair on his face. "We're done for!" he cried wildly. "No matter how I try, everything goes against me. It's no use to keep on—"

Roderick knew his father's temperament—up in the air one minute, down in the depths the next. His gaze passed questioningly to his mother, to Granny.

"It's na guid thing has happened." Granny

had been born in Argyle, and the broad Scotch still clung to her tongue. "The big salt well's flowed a muckle o' green ile and ruint the brine."

"And I'd just paid out good money to get the well deepened," Mr. McDougal groaned. "One hundred dollars Baker soaked me. Thought I'd make it back in salt, but this miserable grease ruins everything."

Little Joe held up the stick with which he had been stirring in the tub. From its point dripped a dirty greenish fluid. "I told Bill Baker he was going too deep, but he wouldn't listen," he muttered angrily. "Break his fool neck next time he—"

"Joel, guard your temper." Mrs. McDougal's thin face grew severe. "Remember what you did to your brother. He'll bear that scar to his dying day."

As the boy relapsed into silence, Mr. McDougal said mournfully, "I guess this is the end of the salt business."

Though the present Mr. McDougal was the only one who had operated the salt wells commercially, salt had long been made on Hard-acres Farm. Always an article of everyday need, the early settlers along Rainbow River had hoarded their salt like gold because of the difficulties of transporting it

from the far-distant Atlantic coast, Corporal McDougal and his neighbors having to journey hundreds of miles across the mountains to bring back their ox-carts filled with the precious substance. For a decade or more these tedious trips were a twice-yearly occurrence. Then Corporal McDougal made a momentous discovery. He had noticed that wild animals frequented a certain spring. Curiosity tempted him to investigate the reason of this, and he found the water to taste strongly of salt. Immediately he began evaporating the brine in a kettle above a fire, and produced a fair quality of crystallization. Others followed his example, and salt making became a common practice among his neighbors, each making only enough to supply his own household.

This state of affairs had lasted up until Mr. Joel McDougal's time. Of a turn of mind to enjoy experimentation, he had engaged Mr. Baker, a well-digger from Blacksburg, to sink a shallow well beside the salt spring on his land. This increased flow of brine produced a considerable amount of salt, for which he found a ready sale down in Blacksburg.

Mr. McDougal's salt making equipment was of the most primitive design: a pump to

draw up the brine from the well, a "settling tank" to permit the impurities to go to the bottom, and a couple of huge tin pans (about ten feet square and fifteen inches deep) held up from the ground by rock pillars. His method of work was equally primitive, having been handed down from his grandfather who had brought his knowledge from the old country. The brine having been drawn off into the pans, fire was built beneath and it was set to heating. When lukewarm, a clarifying mixture, consisting of the whites of three eggs beaten in salt water, was added, and the whole stirred with a wooden rake, causing a black, frothy scum to rise to the surface. Several times this scum had to be removed with skimmers, then, after boiling briskly for about four hours, the crystals would begin to appear. From then on, for ten or twelve hours, the brine was kept simmering over a slackened fire, until the water was almost completely evaporated and the salt could be raked into a pile on one side of the pan.

Pleased with the success of his business, and anxious to enlarge it, Mr. McDougal had hired Mr. Baker and his son Bill to dig the well deeper. Yesterday they had finished their job and gone home. Today, when he

had re-installed his pump and set it to working, he had brought up from the bowels of the earth, not the crystal clear brine he had expected, but a horrible smelling, greenish-brown fluid that threatened to put the quietus on the manufacture of salt.

Rod sighed gustily. It was bad enough having the salt well ruined, but the news was not as staggering as he had expected. When Flora's call had first struck him with dread, he had instantly thought of the house being on fire, or some member of the family dying. "Don't take matters so hard, dad. We can dig another well and get salt," he suggested cheerfully.

But Mr. McDougal refused to be comforted. Sitting down on the bottom step, he stared moodily off into space, remarking dismally that if the oil ruined one salt well, it would likely ruin another; that it wasn't worth while to dig another well to have it run full of oil; that oil wasn't much account anyhow, could use only a little of the thick part for axle grease, and a little for medicine—

The mention of oil as a medicine reminded Rod of the bucket of oil in his hand, and of the fence by the oil spring being tampered with. Turning the bucket over to Granny, he spoke of the Coontses having moved the

line fence to take in the strip of meadow.

"Land's not worth anything anyhow. Moving the fence back a few yards doesn't matter." Mr. McDougal wasn't interested.

But Granny took the matter to heart. For all her eighty-three years and her rheumatic pains, she was keenly alive mentally and a much better hand at business than her impractical son. "Boundary fences ought no' to be moved frae whaur they're put." She nodded her head vigorously. "But Joel is muckle like his father, doesna care about sic things. They're important, though. And twa times already Nat Coonts has backed that fence to suit his ain convenience."

The shiftless tribe of Coonts had long been a thorn in Granny's flesh. Some fifteen years ago they had appeared from nowhere and had built a squatter's cabin on the unoccupied tract adjoining the McDougals'. Rugged and poor for agriculture as Hard-acres Farm was, it was yet bountifully supplied with fresh water springs. The adjoining land, however, had not a spring of any kind, and Rainbow River was so polluted by oil that its water was not fit for drinking. Too lazy to dig a well, Nat Coonts had asked permission from Mr. Tom McDougal, Granny's husband, to shift the fence back a little so he could get the

use of a water spring. Mr. McDougal had agreed, but when the fence was moved, he discovered that the Coontses had also taken off a wooded corner an acre or so in extent. Granny had disapproved, but her husband had been easy-going, so even when the squatters had begun cutting the trees for firewood, no protest had been made.

"Who owns that land the Coontses live on?" Rod asked.

"Some rich man back in the East," his grandmother answered absently, drawing a chair forward and sitting down. Her mind was still running on the McDougal trait of carelessness about land matters. "Joel's his father all ower again," she complained. "Tammas was that uninterested in property. It was him as let the auld linen map get lost. A sma' thing, he thocht it, but I ken fine it micht hae been valuable."

Corporal McDougal, who had known a good bit about many things, had also known something about surveying, so when he had settled on Hard-acres Farm he had filled his spare hours by making a map of his property. Though drawn on paper, merely pasted on a linen back to strengthen it, this had become known to the family as "the old linen map." During the lifetime of Granny's husband, an

elderly surveyor and his daughter had come into the neighborhood. Mr. McDougal had showed him the map and the man had been so interested in it that he had begged to be allowed to take it home to study at his leisure. But before the borrowed property could be returned, the surveyor died suddenly, his daughter moved away, and the map was lost to the McDougals.

Not willing to accept defeat as easily as his father, Rod went down to have a look at the salt well. But the more he pumped, the more of the greasy, briny mixture came up. The next day it was the same—and the next. Then he had an idea. If he couldn't sell salt, perhaps he could sell oil.

Several times the Hylers had dipped a few gallons of oil out of their little spring and had sold it to the druggist in Blacksburg to use in his compounds. Perhaps he could sell some of this oil. It would be a sight less trouble to separate it from the brine than to have to dip it out of a spring by the tiresome blanket method.

With Rod McDougal, to think was to act, so immediately he began to rig up an outfit to experiment with. Pumping the slimy fluid into the settling tank, he allowed it to stand until the oil had risen to the top of the water.

In the meantime he busied himself with whittling a spoon-shaped paddle from a strip of wood.

While he was at work his grandmother came hobbling down the path from the house, Flora helping her along.

"Granny heard you were up to some mischief," the girl laughingly explained, "so she had to come down and see what was happening."

"I ken he'll be making something o' this well yet," the old lady asserted, her bright eyes darting everywhere, taking in his preparations. Despite her great age, her eyesight was remarkably keen. "What you aiming to do, Rod? Sell ile?"

The young man agreed that he was, and proceeded to demonstrate his new method of taking up the grease on the wooden skimmer. As the proportion of oil was greater in the tank than on the spring, in this first drawing he half filled a gallon bucket.

Granny rubbed a drop or two on her palm, sniffed at it. "Smells sair enough to make guid medicine," she announced.

All the family, except Mr. McDougal, took quite an interest in the experiment, but Mr. McDougal could not be persuaded to come near the well.

By the end of the week Rod had collected two five-gallon kegs of oil and was ready to make his shipment to Blacksburg. He planned to go down on horseback and stay at his sister's house while he transacted his business. His brother-in-law, Herbert Dowling, owned a small mercantile establishment and could perhaps put him in touch with a buyer.

While the mists of early morning still lay over the river bottom, Rod started out, a keg slung from either side of his saddle, his ears ringing with messages for Susan and the baby and Bert.

Rod's hopes were high. Indian Oil had been known to sell for one dollar a gallon. If he could get that, his labors would be well repaid.

But alas for the plans of mice and men. Only too often things don't turn out as they should.

Bert Dowling met Rod with bad news. Only a few days before, the Hyler boys had brought down a raft of logs, and on it were two barrels of sopped spring oil. They had sold one barrel to the apothecary, and a grocer had taken the other barrel in charge, to sell some of it if he could. The market was flooded.

CHAPTER III

SMOKE AND SMELL

Bert Dowling reached for the syrup pitcher and poured a goodly quantity over his pancakes. "Mr. Andrews has a little store out on the north road. You might try him," he suggested.

"I'll try anybody!" There was desperation in Rod's tone. All yesterday he had gone around Blacksburg, peddling his oil, and he hadn't gotten a bid at any price. He didn't have the heart to return home and admit failure to his father. Mr. McDougal was blue enough as it was.

"Let me give you some hot coffee," Susan put in softly. "And a couple of cakes."

Susan wasn't pretty like Flora, nor as jolly, but she knew how to make a person comfortable.

"Just one more, sis," Rod smiled in appreciation of her thoughtfulness.

Perhaps it was just luck; perhaps Mr. Andrews needed oil; perhaps it was the inspira-

tion from Susan's tasty cooking; anyway, Rod talked old Peter Andrews into buying a couple of gallons at fifty cents per gallon. Not much, but better than not making a single sale.

After several days of unavailing sales talk, Rod gave up, stored his kegs in Dowling's shed-room, bought some small presents for the family, tobacco for his father, peppermint drops for the girls, and went back home.

It was almost dusk when the boy reached Hard-acres. Pausing a moment at the lane gate, his eyes rested lovingly on the shabby, weather-beaten farmhouse, almost one with the grayness of the evening. Granny and the others there had sent him off with good wishes for success, but he had made a muddle of his first business venture. What would they think of him as a business man? He hated to face their disappointment, their distress.

It was neither disappointment nor distress, however, that met him as he rode into the back yard.

Jan saw him first, and came rushing out of the kitchen door, yelling, "Here's Rod—here's Rod! What have you brought me?"

After her came Flora, Little Joe and Mr. McDougal. One look at his father's face

made Rod forget his own affairs. It was shining with excitement, hope.

Mr. McDougal didn't wait for him to ask what had happened. "I've got it, Rod!" he shouted. "Fortune is just around the corner!"

Rod slid down from the horse. "What—how—when?" he questioned eagerly.

But when his father answered, "Oil—for medicine," his interest wilted.

"You can't sell oil for medicine," he declared somberly. "At least, not enough to make anything out of it. Two gallons—that's all I could get rid of in Blacksburg."

But Mr. McDougal's hopes had soared to the skies. He couldn't see anything but success now. And he did have a novel idea to back his hopes.

"It's this way. There's money in oil, but one has to know how to get it." He followed to the barn and stood talking while Rod rubbed down Bonnie and gave her an extra feed of oats. "For a long time we've been using oil around here and down at Blacksburg, but outside the county, folks don't know much about it. And Indian Oil's a fine medicine; cures 'most anything that ails you. I've got a scheme to introduce it where it ain't well known, and I guarantee it'll sell like hot cakes."

Mr. McDougal's scheme was to bottle the oil and travel over the state, offering it as a cure-all for humans and horses. Rod didn't see much to the idea, but he didn't like to be a wet blanket, so he kept his opinion to himself.

Mr. McDougal's preparations were on an elaborate scale. A couple of trips to Blacksburg were made to buy bottles and have advertising circulars and labels printed. These circulars cost more than he could well afford to spare, but they were his pride and joy, and he read them aloud to the family, individually and collectively, at least a dozen times a day. In bold black type, on orange-yellow paper, they proclaimed to the world the epoch-making discovery of—

"McDougal's Indian Oil—Celebrated for its Unsurpassed Curative Powers—Dame Nature's Own Remedy, Drawn from Her Storehouse Hundreds of Feet Below the Surface of the Earth. The Pains of Lumbago, Rheumatism, Neuralgia, Gout, the Yaws, and Other Ailments Too Numerous to Mention, Yield to its Soothing Touch. After a Few Applications Any Sufferer Is Restored to Health and Usefulness."

There was a picture too: a Good Samaritan, in frock coat and high hat, with features rather resembling Mr. McDougal's, offering a bottle of Indian Oil to a man as emaciated as the Living Skeleton in a circus.

For the next few weeks the family was in

a turmoil, other work being suspended so that all hands might pump oil, fill bottles, paste labels, fold circulars, and do the hundred and one things Mr. McDougal demanded in the name of business. So it was with quite a feeling of relief that they watched him start on his tour. True to his temperament, he drove off with a great flourish, his whip ornamented with an orange ribbon, an orange banner flowing down the back of his buggy, partly concealing the boxes and crates which held his stock in trade.

Though his first try at making something out of oil had proved a fizzle, Roderick McDougal couldn't let it alone. There was a fascination about the ill-smelling grease. It dared him to come on, to conquer it or be conquered.

Though the oil might be valuable as medicine, Rod hadn't found it so. Therefore his interest had taken another tack. Various liquid greases, lard oil, whale oil, were useful in illumination. Why not Indian Oil? Everyone knew it would burn like fury. From childhood up he had been warned never to strike a match nor light a fire near Rainbow Spring. So all the spare hours he could snatch from the farm work, Rod spent in experimentation. First he tried burning

the stuff crude from the well, but its smoke and smell were so nauseating that he was almost overwhelmed, and had to put out the flame. The problem, then, was to eliminate the smoke and the odor. But how?

Condensation was the answer he finally evolved. As boiling water makes steam which, when chilled, returns as purified water, so might boiling oil make a vapor which could be converted into a purified oil.

The first step was to build an out-of-door fire-box of stones, similar to those used in salt making, but much smaller. The second was to fit an old kettle with a cover and a worm, or piece of spiral piping. The third was to fill the kettle with oil, set it over the fire, and place a bucket to catch the drip from the worm. All very simple operations, yet Rod was as excited as he watched for the first drop of oil as was ever any gold prospector hot on the trail.

The distillate, when it finally arrived, was almost as dark and heavy as the original oil. Rod's heart sank. But when he examined the kettle he found a gummy mass had remained behind. Some purification must have taken place. This was encouragement enough for him to take his bucket of oil to the house to show it off.

Proudly Rod displayed his product. "Looks about like the crude, but it's purer. You'll see that when I start burning it. And this is just a beginning. Give me time to rig up a better refining outfit and I'm sure I can—"

"Oh, my son, my son!" Mrs. McDougal exclaimed sadly, laying down the towel she was hemming. With hardly a glance at the bucket of oil her eyes moved up to the boy's face. "How can you waste your time with such things, when there's better work for you to do?"

Mrs. McDougal's father had been a divine of the stern Scotch tradition, and it was her hourly prayer that her first-born might follow in his footsteps. But Rod had no leanings toward the ministry, preferring to take his religion as a layman and heed the call of business.

"I don't feel that I am wasting time," Rod protested. "Wouldn't it be a worth-while thing if I could make something that would give light in homes all over the country?"

"Worth-while, yes, but not the joy to me of seeing you in the pulpit," the woman said bitterly.

Little Joe had been sitting at the table, splicing a leather strap. At his mother's words he glanced up quickly, and an unhappy

look came in his eyes. Rising quietly, so as not to attract attention to himself, he slipped out of the room. He had learned to keep out of his mother's notice when she was in such a mood, for then she said things to hurt him. Once he had broached the subject to her that he would like to study for the ministry, but she had discouraged him as not being worthy of so high a calling.

It was true Little Joe had a temper. Years before, in a fit of childish rage, he had thrown a pocketknife at his brother and had hit him above the eye. Rod had not been seriously injured, but the scar had remained as a constant reminder to Mrs. McDougal that within her younger son lingered traces of Original Sin. And she never allowed him to forget it either. Despite the fact that he had suffered agonies of remorse, that he had never permitted himself another such outburst, his mother's stern code still insisted that it was not fitting that he should become one of the Lord's anointed. Under this lack of sympathetic understanding, Little Joe had become morose and sullen, brooding over his thwarted longings, doubting his own abilities, not finding happiness in other work.

"I dinna ken how it will burn, but gie it a try in the lamp frae my room," said Granny.

So Rod got the small tin lamp off her shelf. Intended for burning whale oil, it consisted merely of the round wick tube and woven wick coming up out of the oil container.

The family gathered around while Rod filled the vessel with Indian Oil and lighted the wick, but they backed away as the black smoke rolled up, and the room filled with the offensive odor.

"Take that thing out of the house!" Mrs. McDougal commanded, her housewifely soul filled with disgust. "I'll have none of that evil-smelling stuff around me. Give me good clean candles every time."

The others were rubbing their eyes and coughing so painfully that Rod was glad to take up his lamp and escape from their possible reproaches. The demonstration hadn't turned out such a success; still he hadn't lost faith.

In the side yard was a rough shed built to house the plows and other farm implements, but also used as a sort of workshop. To get his flame out of the wind, Rod retired to the workshop to finish his experiment. He wanted to try the wick at various levels to see how the oil affected it.

After a few minutes, Jan came in. "I guess I can stand the smell if you can," she an-

nounced cheerfully, clearing off a long bench to sit on. "Got to see what you're doing. Gee, but I'm tired!" she declared, stretching and yawning. "Would you believe it, Granny nearly walked Flora and me down."

"You're just lazy," the boy commented, his eyes on the flickering light.

"Hey, Rod, help me get the pigs out the 'tater patch," Little Joe yelled.

"Be back in a minute," Rod told Jan as he put the lamp down on a big box.

But it was fully thirty minutes before the pigs were corralled, and the break they had made in their pen mended.

As Rod returned to the shed, a fearsome sight met his eyes. Janet lay on the bench, fast asleep. On the box near her head stood the lamp, flame shooting out of it, the red tongue leaping two feet or more into the air.

Any minute there might be an explosion.

CHAPTER IV

GEORGE W. OLIVER

Like a sickness that paralyzed his muscles, the realization of Janet's danger swept over Roderick, leaving him helpless with horror. None knew better than he the frightful power that lurked in that tiny tin lamp filled with gaseous fluid. Containing but a small amount of oil, yet it could flare up into an explosion that would wreck the tool shed and tear Jan's strong young body to pieces.

He tried to run forward to drag her to safety, but could not,—his feet seemed rooted to the ground. He tried to call out a warning, but no sound came from his throat. Like one bereft of his senses, he could only stand stock-still and stare at the flame as it veered in the breeze, bending, swaying, an evil, sinuous line of red lightly awaiting its moment to bring disaster, death.

Before that moment came though, Rod had shaken off its hideous hypnotism. Somewhere

within the house he heard Granny's voice calling for Janet, and the sound seemed like a charm to break the spell that bound him. His heart, that had been frozen with horror, suddenly poured a hot torrent of blood through his veins, awakening him to action.

Shouting, "Jan! — Fire! — Get out!" he rushed into the shed and grabbed up the lamp.

There wasn't time to put out the flame. Already the tin was so hot it seared his fingers, but he managed to hold on to it till he could fling it out into an open space in the yard.

As it struck ground the lamp exploded, sending up a shower of sand and gravel and fire, scattering a flock of terrified chickens and ducks.

It was a harmless explosion, but the noise of it brought the family on the run; Granny, Mrs. McDougal, Flora, from the kitchen; Little Joe and Uncle Angus from the barn. "Fire—fire! Are you hurt? Run get a bucket of water! What happened? Was it the lamp?" Everybody was yelling questions at everybody else.

Jan was wide awake now, thrilling with the excitement of the danger she had escaped. "It was about to blow up the shed—and me in it," she chirped, "and Rod picked up the lamp and threw it out and saved me."

Mrs. McDougal gathered her youngest

daughter into her arms, and turned angrily upon her son. "Don't you be setting fire to any more of that stuff around here! Do you think I want my children burned—and my house too? It's dangerous stuff. I'll not have you—"

"Na, na, Mary," Granny interposed. "Dinna talk to him so hard. The warld couldna make progress if everybody was afeared o' hurt. Leave him to his experiments. He'll be mair careful next time."

Rod turned thankful eyes upon his grandmother. It was like her to take his part, to understand that with him this was no idle play, that he had vaguely glimpsed a vision that was leading him on—on.

"I believe—I can make this oil—safe—to burn in lamps," he said slowly.

Mrs. McDougal looked at the charred grass, at the little lamp with its sides burst open. Then, as if speaking against her better judgment, she said she'd not interfere with what Rod was trying to do if he'd promise to take care not to blow up himself or anybody else.

So Rod went on with his experiments in refining oil. For days at a time he worked at his smoky, inconvenient kettle-still, but for all his labors, — sometimes running the oil through two or even three times—he produced

a quality only slightly better than that freshly drawn from the well. It was discouraging, baffling. He didn't want to give up, yet he hardly knew what to try next.

In the midst of Rod's distress arrived Herbert Dowling, bringing Susan and the baby to spend a few days on the farm. Immediately Rod dragged him off to take a look at the refining outfit.

Bert was willing to look, to sniff at the oil, even to taste it, but he couldn't offer any suggestions for improving it. Finally, however, an idea did strike him. "By the way," he said, "there is something you can do that might help. There's a chemist moved into Blacksburg a few weeks ago, G. W. Oliver, pleasant sort of young fellow. I'll take him a sample of your stuff and get him to analyze it. On Friday you can bring Sue and the kid home, and talk to Oliver yourself. He might be able to tell you something."

So on Friday, according to schedule, Rod hitched Bonnie to the spring-wagon (Mr. McDougal had the buggy) and drove his sister and nephew home.

Bert greeted them enthusiastically as they drew rein in front of the store. "Oliver's ready for you," he shouted. "Told me to bring you over as soon as you came."

As fall trade was brisk, and as the Dowling Mercantile Establishment was trying to get along with only one clerk, Bert couldn't get off from business until after the store closed. So it was almost dark when he accompanied Rod down to the little laboratory the young chemist had fitted up in a one-room shack on the edge of town.

The boys took to each other immediately. They were alike in being filled with the desire to do something big, and in being hampered by lack of funds. In appearance, however, they were totally unlike, George Oliver being dark and heavy-built, Rod McDougal blond and slender.

"You've got something mighty interesting here, but I can't tell you much about it." From a long shelf beside the window George took down several bottles. Even though the light was dim, one could see that their contents ranged in shades from almost colorless through yellow to deep yellowish-brown. "Been trying fractional distillation and this is what I got. Clearer than the crude, but still smells like Hades."

Rod examined the bottles. "Bert's told you, I suppose, that I want to fix it up to burn to give light."

"Uh-huh," George nodded. "I've been try-

ing it in this lamp. Not so good, though. Want to see if it's any better than what you had?"

"Sure," the others agreed with alacrity. But as Oliver filled the small lamp and set it to burning, it produced such a dense smoke and sickening odor that Dowling was seized with coughing and he had to put it out.

"I said it wasn't so good," Oliver spoke up quickly, noticing the disappointment on Rod's face.

"But it can be made good." Young McDougal set his mouth in determined lines. "There's no reason why Indian Oil—"

Oliver looked up. "What did you call it?"

"Indian Oil. The old folks around home say the Indians used to use it."

The other was interested. "That's a new one on me. Over in Kentucky, where my mother lives now, stuff like this is found in a number of springs. People there call it Rock Oil. The scientific name is petroleum, derived from the Latin words, 'petra,' rock, and 'oleum,' oil, for it's usually found in rocky places."

"Petroleum—petroleum—" Rod McDougal repeated the word softly, rolling it about on his tongue. There was a richness to the sound. He liked it.

"I haven't been so busy these past few days, so I've been fooling around with this, trying first one thing, then another." George lighted a candle and invited his guests to seats on the one chair and the bed. "Want to hear a sort of report?"

They did, so the chemist proceeded to tell what he had learned by examining and experimenting with the oil Bert Dowling had brought from the McDougal salt well. The crude oil was dark brown in color, but by reflected light it was greenish or bluish. It was normally of the thickness of thin molasses, but when chilled became somewhat stiffer. It had a strong odor, like mineral pitch or bitumen. Exposed to the air, however, it did not thicken or form a skin on the surface like bitumen. It would stain paper like any ordinary fat oil, and felt smooth and greasy between the fingers. In its crude state it was suitable for lubricating coarse machinery.

"Dad's always used it for wagon grease," put in Rod.

Hardly noticing the interruption, the other went on. In an endeavor to purify the oil he had tried distillation, and had succeeded in thinning it and clearing the color, but the bad odor still remained, and it still smoked in the lamp.

"You don't know a way to get rid of the smoke and smell?" Rod questioned. "That was what bothered me."

Oliver shook his head and reached for the bottle of colorless liquid. "This is as pure as distillation can make it, yet you saw how it smoked in the lamp. It needs treatment with some outside matter—some acid, perhaps. And very likely it calls for a new type of lamp—"

"Acids?" Rod seized upon the idea. "What acids?"

"Oh, I don't know. Sulphuric acid, perhaps. I had thought of that. I'd go on and try it out for you, but Dr. Hartman's given me an order that's going to keep me busy for a long time, and you wouldn't want to wait."

For a while longer the three discussed ways and means of refining petroleum. Each had some rather vague, hazy ideas on the subject, but all were agreed that something ought to be done; that there must be some better use for it than as a mere liniment or axle grease.

When Rod arose to go he offered to pay the chemist for his analysis, but Oliver would have none of his money, insisting that he hadn't told anything but what Rod already knew. "But I'm interested in your oil," he said. "We must get together on this again. I'd like to

come out sometime and see Rainbow Spring and the salt well you get the oil from."

There was no tangible benefit from Roderick's visit to the chemist, yet he went back to Hard-acres Farm inspired to fresh efforts. Use acids—make a new kind of lamp—these were ideas worth thinking about.

Only a few weeks after Rod's trip to Blacksburg, Mr. McDougal returned from his tour. One glance at his drooping shoulders, at his dejected face, was enough to show that he had not found the success he had sought. The bottled oil had sold fairly well, but the expense of traveling and of feeding himself and his horse had eaten up the cash he had taken in, so he had been forced to come home no richer than when he had set out, and poorer, by the cost of the bottles and labels, than when he had originated the idea of McDougal's Indian Oil Cure.

One afternoon Janet, hearing sounds from the tool shed, looked in to see Rod hard at work with saw, hammer and plane.

"What do you think you're making?" the girl cried excitedly.

Her brother looked up and grinned. "Just you wait and see," he teased.

CHAPTER V

THE STRANGER

Roderick didn't say so, but Jan guessed that he was making a new outfit for oil refining, and she was right.

Each day, when his share of farm work was done, Rod would turn to his hobby, willing to give it his every spare moment, his every thought. A safe distance from the salt well that flowed the oil, he built a small cabin to house his refining tanks and materials and also to protect himself from the chill autumn winds that were beginning to blow. Through experiments he gradually worked out an arrangement of tanks and pipes that produced a good grade of distillate. His still consisted of a stout metal barrel of forty-two gallon capacity. A fire under this caused the oil with which it was filled to vaporize and pass into the condensers (long iron pipes immersed in cold water), from which it emerged again in liquid condition and poured into the receiving tank, another large metal barrel.

It was this receiving tank, or rather its contents, that received most of Rod's attention these days, for it was on this distillate of petroleum that he made his experiments with the various acids and alkalis that George Oliver had suggested as possible cleansing agents. Sulphuric acid, nitric acid, peroxide of manganese, permanganate of potash, bichromate of potash—he tried these one after the other, time and again and in varying proportions, but always he came back to sulphuric acid as giving the best result. A small amount of sulphuric acid poured into a tank of oil and the whole stirred violently with a paddle for about fifteen minutes caused all foreign ingredients, such as dirt, tar or other impurities, to separate from the oil and drop to the bottom of the vessel.

However, when Rod tried burning this oil, he found that while much of the smoke and original odor had been dispelled, a new, sulphurous odor had been acquired which was hardly any improvement at all.

It was then that he hit upon the idea of "washing" the acid out of the oil, using fresh clean water, and repeating the process several times. After washing, he treated it with a solution of caustic soda that removed every particle of acid that may have remained.

The oil now burned with a fairly clear, smokeless flame, but experiments proved it was still dangerously explosive. Rod was wondering what he would have to do to make it more safe, when Little Joe stepped in with an extremely simple but effective suggestion —leave the oil exposed to the air until the gaseous and lighter portions had evaporated. As the chief danger of explosion lay in these volatile gases, their removal left the remaining oil in a much more tractable state.

All through the fall and winter months, side by side with Roderick McDougal's efforts in refining petroleum went his efforts to design a lamp suitable for burning it.

It's a strange thing about lamps. For literally thousands of years mankind has made use of them, yet it was not until well after the middle of the eighteenth century that any real improvement was introduced in their construction. The earliest lamps were merely a sea shell, or crudely hollowed stone, or the skull of some animal—anything that would hold fat or fish oil to feed the bit of twisted moss that was the wick. The Babylonians, the Phoenicians and other early civilized peoples made lamps of pottery or metal, but these followed the primitive form, being nothing more than a shallow vessel to contain oil and

wick, with perhaps a handle to carry it by. The Greek lamp makers beautified their bowls with carvings and paintings, but they made no attempt to improve the light of the smoky, flickering flame, nor did their fellow craftsmen of the Middle Ages.

The North American Indians possessed no means of lighting save by torch or bonfire, so the stone lamps of the Eskimos, similar to what they use today, were the only early American lamps. And to tell the truth, the first lamps brought to the Plymouth colony in 1620 were not greatly superior to the stone lamps of their neighbors in the far North, being simple, cup-shaped affairs of cast or wrought iron.

It was not until about 1780 that anyone seemed to have given a thought to improving the light of the lamp. In the decade following that date, the flat woven wick was perfected, and the tubular Argand burner was designed, the center tube supplying sufficient oxygen to render the flame very hot and thus prevent the escape of smoke.

The whale oil lamp and the lard oil lamp were later developments of this period. So was the camphene lamp with its dangerous, volatile gases.

Roderick McDougal had first-hand informa-

tion on the lamps burning whale sperm and lard oil, for his mother had a couple of these that, on state occasions, she used to supplement the light of her candles. Also he knew their inconveniences—that whale oil was expensive and hard to get and that lard oil was unsatisfactory for cold weather use, the lard solidifying and refusing to burn.

One of the most frequent visitors to Rod's workshop was his Uncle Angus, who seemed completely fascinated by the idea of making lamps, and who delighted to talk about the curious lamps he had seen in foreign parts. Long years ago, Angus Bute had been a sea captain, and in his own sturdy vessel had trod the ocean paths. But tropical fever had destroyed his health and forced him to seek a home with his sister and her family. Now a mere shell of the man he had been, his mind slightly off balance, he lived in a world of his own imagination, spinning endless yarns for his own entertainment. Sometimes, however, there was a grain of wisdom in the words he was so prodigal of, as Rod discovered to his own good fortune.

For weeks Rod had been working at forge and anvil, making a perforated hood-shaped cap of metal to surround a lamp wick and let a supply of oxygen in to the flame. At last the

contrivance was finished. He fitted it to the small hand lamp he had prepared, and struck a match to the wick.

Then he stepped back to admire. There was hardly any odor and very little smoke. It seemed that he was on the track to perfect illumination.

Suddenly the cabin door flew open with a bang, and Uncle Angus blew in on a strong east gale.

The flame that had been so bright and steady veered wildly. Black smoke rolled up from it.

"Shut the door!" shouted Rod, cupping his hands about the light. "Shut the door!"

Quickly the other obeyed, then came over to the table on which the lamp stood.

"Minds me you need one of those protectors like I saw in Paris when I was running there regular from the south ports, taking in sugar, tea, indigo. Always had a heavy load,—those Frenchies liked their—"

"What kind of protectors?" Rod steered him back to the original thought.

"Oh, a sort of glass thing, all around the lamp." He made a vague, confused motion with his hand. Then a smile spread over his face. "Didn't I ever tell you about that?"

"Tell me about it now," the boy urged.

"It was at a fair, like they're always having in those foreign cities, people bringing things to sell and to show off. I saw a fellow there with some funny little lamps with bottles set on top. Yes, siree, just plain glass bottles with the bottoms gone out of 'em."

Uncle Angus didn't know it, but his was the story of how the first glass chimney was discovered. A workman was heating a bottle over an Argand lamp when the bottom cracked off. To ease his hands from the heat, he slipped the glass over the flame, and was shrewd enough to notice that instantly the light became steadier, brighter. But as the small flame of the ordinary lard oil or whale oil lamp did not require a chimney to steady it, the idea of the chimney had not seized upon the popular imagination.

The flame of the petroleum lamp, however, was large, and needed some protection from the air currents. There was an excited gleam in Rod's eyes as he stared at it. A glass chimney, like a bottle. Why hadn't he thought of it before?

By nightfall he had ransacked his mother's shelves for a suitable bottle, had broken off top and bottom, making for himself a clear glass cylinder to put over his flame.

A few more weeks of work, putting his oil,

his lamp burner and his bottle chimney to severe tests, proved to Rod's satisfaction that his basic idea was sound.

From the very first Bert Dowling had been interested in his experiments, so as soon as he could, Rod took his apparatus down to Blacksburg for a demonstration. Bert was carried away by the beauty of the light, and excitedly confided to Rod that he had several hundred dollars in the savings bank that he was willing to invest in putting the new invention on the market. Also he knew of a glass company that would be willing to make up a small order, say a hundred glass lamps with metal burners, and two hundred chimneys.

This suggestion suited Rod exactly. He turned over to Bert the responsibility of getting the lamps manufactured, and went back to the farm to set his little refinery going full speed. It would take plenty of petroleum to keep one hundred lamps burning.

In spite of instructions to rush the order through, it was nearly the end of February before the shipment of lamps arrived. Bert sent for Rod to come down for the unpacking, and together they staged a big show, spreading the town with hand-bills inviting the citizens of Blacksburg to visit the Dowling

Mercantile Establishment and inspect the marvelous new Petro-lamp, the wonder of the age.

The first day a number of people called, but only a few bought, the majority saying they preferred candles, some frankly admitting that they were skittish of oils that might be dangerous. But by the end of the week the first buyers were praising their purchases so highly that for a while there was a regular run on lamps.

To promote business, the boys gave away a gallon of oil with each lamp, but one gallon couldn't last very long, and it was soon an everyday occurrence to have customers asking for "McDougal's petroleum."

When Roderick took his first profits home, almost a hundred dollars, and displayed the money to his incredulous family, they were thunderstruck.

"'What fools these mortals be!'" Mrs. McDougal muttered, "spending their good money for that ill-smelling grease!" Then she added sadly, "I suppose now you're lost to the pulpit forever."

Granny was all tense with excitement. "I kenned fine ye'd win out, laddie," she exclaimed proudly. And then to prove to her daughter-in-law that the Lord might be well

pleased with Rod going into the petroleum business, the old lady searched diligently through her Bible and brought out such statements as: "And the rock poured me out rivers of oil," "Oil out of the flinty rock," and "Will the Lord be pleased with . . . . ten thousands of rivers of oil?"

The news that Rod McDougal was making money out of petroleum swept over the countryside like wildfire. Every man who had any sort of a grease spring on his land went into the oil business. Mr. Hyler and his three sons began to ditch around their small spring and to gather the oil into a vat. The Coonts family was inspired to do likewise, there being a faint oil seepage on their side of the boundary fence.

Granny and Little Joe, walking down to the river, found the tribe of Coonts hard at work for once in their life. As the boys of the family were small, Mrs. Coonts and the three half-grown girls were helping old Nat dig. As usual, Mr. Coonts' tongue was going top speed and, as usual also, Mrs. Coonts began to hush him up as she saw her neighbors approaching.

"G' morning, Mrs. McDougal. G' morning, Little Joe." Mrs. Coonts laid down her shovel, glad of an opportunity to rest and talk. De-

cidedly overweight, she was panting from her exertions. "We're digging for oil too, same as everybody else. Mr. Coonts don't like it for me and the girls to have to work so. He's from a mighty fine family and knows how ladies ought to act. But bless my soul, somebody's got to help him, and Ferdie and Cecil's too little."

"Exercise 'll na harm ye," Granny was stating coldly, when a tall, homely girl with yellowish hair hanging around her face came strolling down the path, a rusty pick-axe over her shoulder. At sight of the McDougals she gave a little scream, flung down the axe, and went running back toward the house.

"Orene's sort of fanciful. Don't want folks to see her working. Got ideas like her papa," the woman complained, but there was a proud glint in her eyes. "Mr. Coonts says ladies hadn't ought to work."

Granny sniffed scornfully as she and Little Joe walked on. "Fine family, huh? Always bragging and got nothing to brag about."

The boy smiled. "Nothing but their high-sounding names. Orene, Belinda Belle, Bessie Mae, Ferdinand and James Cecil. Where else could you find an assortment like that?" Then he added, a bit hesitantly, "Don't laugh, Granny, but somehow—I—feel sorry for 'em."

In spite of all the neighbors gathering oil and shipping it down to Blacksburg, the demand still exceeded the supply. Mr. McDougal and Little Joe worked like Trojans helping Rod separate the oil from the water of the salt well, sop it off Rainbow Spring, and run it through the refinery. They produced a goodly quantity, a dozen or more gallons a day, and they found a ready sale for every bit of it.

As regular as clockwork, every Friday morning, Rod would drive to town with two or three barrels of oil on the spring wagon, Bert would have the empty barrels waiting, and next morning he would come back and start the round all over again.

The last week in March, however, there came a variation to this routine. Friday night, while Rod was waiting for Bert to close up the store, a stranger entered.

There was something in the man's face that compelled attention. Rod found himself watching him as he stopped to speak to Bert. Then, to his surprise, the man came on toward him, holding out his hand, and with an eager note in his voice asking, "You're McDougal, aren't you? Can you spare me a few minutes? Got something important to talk to you about."

CHAPTER VI

THE INDIAN OIL COMPANY

"My name's Graham—Will Graham," the stranger introduced himself. "Have come all the way from New York to talk to you."

Rod was puzzled. What in the world could this man, with his lean face and brilliant eyes, and his debonair manner of wearing a shabby suit, want with him? Surely it couldn't be because of his little success with petroleum? News of that could hardly have traveled out of the county.

But it was the petroleum. Graham was pulling something out of his coat pocket—one of the circulars advertising McDougal's Indian Oil Cure. "Got this wrapped around a bottle of horse medicine," he was beginning, when Rod quickly interrupted.

"It's my father you want to see. He's the one who put up that. If you're interested—"

The other smiled. "You're the one I want to see, all right. And it's not the medicine I'm

interested in,—well, not as medicine." With a crackling of paper he unfolded the circular, ran his eyes up and down the print. "I've heard of oil springs, but this says you got your stuff from the depth of the earth."

"Came up through a salt well. Dad thought we were ruined when the grease started mixing with the brine. But things seem to be turning out for the best."

"Seems to me you're making 'em turn out that way, young fellow." There was a flash of admiration in the other's eyes. "I've heard about you and your lamps and your lamp oil. And that's why I'm down here—to see if you and I can't get together on this petroleum business, and do something big with it."

Bert Dowling finished with his customer and came up to listen while Graham briefly outlined his idea. If one could get some oil out of a well dug for salt, couldn't one get more oil out of a well dug for oil?

"I'd thought of that," admitted McDougal, "and had planned that some day I'd take a try at it. But it costs money to sink a well to any depth, and I haven't had—"

"Now that's where I come in." Graham excitedly pounded him on the back. "Got a couple o' thousand that's itching to be put to work. Inherited money—never had sense

enough to lay anything by, nor stayed in one place long enough to do it. But I'm ready to settle for a while now. Let's talk about a partnership."

Dowling frowned. He had been in business for himself long enough to be somewhat suspicious of smooth-spoken strangers and their money-making propositions. Cautiously he plucked at his brother-in-law's sleeve and tried to catch his eye to warn him to go slow. But Rod was oblivious of his signals.

"Wish I could take you up on that," he grinned, "but the land doesn't belong to me. It's Granny's and dad's. But come on out to the farm. I believe they'll talk turkey to you."

A few days after Rod returned home Mr. Graham appeared at Hard-acres Farm, coming by horseback from Blacksburg and arriving in the middle of the afternoon. Rod had told his father about the meeting, so Mr. McDougal, ever interested in something new, welcomed the stranger and hospitably invited him to stay the night and talk things over at his leisure.

While it was yet light the men went down to look at the oil-flowing salt well, and at Rod's homemade refinery.

Every little while Will Graham would stoop to pick up a pebble, which he would examine

intently and perhaps slip into his pocket. Also, in walking over the farm, he several times commented on the ruggedness of the land formation, hills, ravines, and outjutting ledges of stone.

"Are you one of these here geologists?" Mr. McDougal inquired, as the visitor added another bit of rock to his collection.

Graham smiled quizzically. "A geologist of a sort. This Rainbow River strata is evidently made up of slates, shales and conglomerates, judging by the samples I've found. This is conglomerate." He held out a piece of rough brownish stone. "Made up of pebbles and sand that nature has cemented together. Must have been made plenty long time ago, too. See how the floods of tens of thousands of years have tumbled it about and smoothed off its rough edges."

"Why are you so interested in those rocks? Have they got anything to do with the oil?"

"Rock Oil comes from rocks, doesn't it?" Graham's tone was slightly superior.

Mr. McDougal looked at him with new respect. The fellow evidently knew what he was talking about.

It was the stranger's turn to be impressed, though, when Rod showed him the refinery in action and carefully explained the various

treatments of the oil by acid and water and evaporation. "Boy, you've got a gold mine here, you've got a gold mine," Will Graham kept repeating.

Each trying to tell what he thought was the future of petroleum, the three excited men lingered over the oil tanks until Mrs. McDougal called them in to supper.

While they were sitting around the table, doing justice to ham and eggs, hot rolls and coffee, Will Graham got to talking about his travels. A forty-year-old bachelor, with no family ties, he had spent his life in wandering. He had been everywhere, seen everything, and, so it seemed to Rod, knew a smattering of everything. Of course the thought of oil was uppermost in the minds of all, so it was natural that it should flavor the tone of his conversation.

Petroleum, he said, wasn't so well known in the United States, but in the Orient it had been in use since ancient times. Genesis spoke of the vale of Siddim being full of slime pits. And he himself, not far from the ruins of Babylon, had found many springs throwing out a black substance like tar or pitch. The largest spring was divided by a wall in the center, on one side of which bubbled up bitumen, and on the other oil of naphtha. The

natives now used it for caulking their boats, but the builders of Babylon had used it as mortar in their stone walls.

"As early as the seventh century the Japanese knew of the burning water. I've run across grease pits a-plenty there, and in Burma and India too." Graham grew expansive. He was enjoying this audience that hung spellbound on his words. "The Rangoon districts on the Irawaddy are full of the stuff. The pits there are deep, so the people dip it out by bucket and rope rigged up on a windlass. A lot of it is sold down in Burma. Big boats come down the Irawaddy to the town of Rainanghong where every second man's a potter. Keeps 'em busy making the earthen jars to put the oil in."

On and on he rambled. It was almost as if he had trailed petroleum around the world. He had visited the great lake of asphaltum on the island of Trinidad and had seen the numerous flowing oil springs of Baku. "But we'll make Rainbow River oil outshine 'em all, eh, sport?" he shouted, leaning over to whack Rod playfully on the knee.

The McDougal family was delighted with their guest, so next morning when he started to talk business, they were ready to listen.

Right then and there the Indian Oil Com-

pany was formed, to produce, refine and market petroleum. Graham put up two thousand dollars in money, Mr. McDougal and Granny put up the land, and Rod promised to put up all the hard work and cleverness of which he was capable. Because Rod had been, and likely still would be, the moving spirit of the whole affair, Graham laughingly dubbed him the General Manager.

Though Mr. Graham had visited many famous oil locations the world over, he had had no practical experience with harvesting the slimy fluid, so he left to the McDougals the business of getting things started. He had certain private affairs that called him back to New York, and took his departure immediately, promising to attend to the purchase of an up-to-date pump and other equipment, and engaging room and board from Mrs. McDougal for his return.

Upon Rod devolved the responsibility of choosing the site in which to sink the first oil well. Carefully studying the lay of the land, he decided that though oil flowed in moderate abundance from the salt well, a much greater flow could be obtained from a well near Rainbow Spring. Therefore he picked a spot about fifty feet southeast of the old spring, in a slight hollow where there

were "surface indications" or tiny oil bubbles coming up through the sand and rock.

Fully recovered from his depression following the failure of McDougal's Indian Oil Cure, Mr. McDougal was all excitement over the new venture. Quite forgetting his anger at the Bakers for digging too deep and ruining his salt well, he made a special trip to Blacksburg to engage them to dig the new well.

On Monday morning Hiram Baker and his son Bill, a slow-moving, awkward sort of boy, reported for work, bringing with them their tools, pick-axes, shovels, spades, and also some of the lighter implements for drilling.

The general practice in sinking salt wells was to dig a pit down to bed rock, then begin drilling operations. Following this rule, Mr. Baker laid off a plot some four or five feet square, and he and Bill began digging. When only a few feet down, they ran into difficulties. The pit filled so rapidly with water that it kept Bill busy bailing it out. Also the sides crumbled, and threatened a cave-in.

"Have to crib it with timber, won't you?" Rod suggested.

"Naw! 'Tain't worth the trouble," the man grunted, disliking the extra work.

Rod said no more. He didn't like to interfere with one who presumably knew his

business. But before many days passed, something happened that made Mr. Baker wish he had taken the precautions that spelled safety.

For a long time that morning Rod had watched the work. The hole was down about ten feet now, and going deeper every minute. Between them, the Bakers had worked out a system of a windlass and two buckets, one for water and one for sand and gravel. Bill stayed down in the pit, alternately digging and bailing. Mr. Baker stayed aboveground and operated the windlass.

Rod would have liked to spend all his time watching the progress of the well digging, but to supply his customers in Blacksburg it was still necessary to take the oil from the salt well. So he crossed over to the other side of the farm to where he had his refining outfit. But as he was preparing to stoke his fires and set a still of oil to boiling, he heard Mr. Baker's big voice yelling, "Help! Come quick! He'll die! Help me get him out!"

Instantly Rod guessed what had happened. There had been a cave-in, and Bill was buried beneath a mass of sand and gravel. If they didn't get him out in a hurry, he'd be smothered.

CHAPTER VII

BED ROCK

Flinging down his armful of firewood, Rod rushed out into the open. Could he get there in time? Mr. Baker could hardly rescue Bill by himself, and perhaps none of the others had heard his cries.

Under no circumstances would Hard-acres be termed a large farm, but to try to run across it, with tragedy tugging at his heart, made it seem vast in extent. Roderick's long legs took him leaping down the woodland path, but it seemed to him that he had never run so slowly. As it was, though, he arrived at the pit right upon the heels of his father and Little Joe, who had been working much nearer by.

Rod's guess was correct: there had been a small landslide, and Bill Baker was caught under it.

Mr. Baker was frantically attacking the treacherous, sliding sand, but he was so weak with fright that his efforts with a shovel

amounted to little. "I'm 'fraid he's killed already," he was sobbing.

"Get that spade—dig over there!" Rod yelled to Little Joe, as he grabbed up a shovel and leaped into the pit.

Flinging out the dirt, scratching it away with their bare hands, it was only a moment or two before they had the other boy uncovered. He was insensible, but still breathing.

Laid out on the grass, with water dashed in his face and his hands rubbed vigorously, Bill was soon revived. But his accident had given him an aversion for working upon that particular well. "No, sir, I ain't going down that hole no more!" he declared, nervously licking his lips.

Mr. Baker upheld him. Shaken by the nearness to tragedy, he washed his hands of digging oil wells. He admitted that he ought to have cribbed the sides, but he hadn't, and his son had nearly been killed, and he wasn't going to dig in any more sliding sand. "You can do your own digging. I'm through," he announced, beginning to pack up his tools.

So work was held up indefinitely, for expert well diggers were not easy to find.

When Graham came, Rod met him with the bad news. Together they went to look over the scene of the catastrophe.

For a long while they stood staring at the abandoned pit. Rocks were heaped about its edge, but rain had packed the sand down in it. In one hand Rod was carelessly swinging a short length of iron pipe that he had picked up at the refinery. Hardly noticing what he was doing, he stuck the pipe down in the sand and pressed upon it with his foot, talking all the while. "Don't know who we can get to put down the well. Baker flatly refuses to dig in this sand."

Suddenly he looked down. He had pushed the pipe almost out of sight into the earth.

As he stared, the idea struck him and Graham simultaneously. Drive a pipe through the sand to bed rock, then drill through that. No sense in digging a big hole anyway. It merely had to be filled up when the well was finished, and there was no reason why the drilling tools couldn't be operated through a good-sized pipe.

Excitedly the two began explaining to each other how the thing could be done. The steam engine that was later to operate the drill could drive down the pipe. And the same sand-pump that was used in the drilling could clean out the debris.

The promoters of the Indian Oil Company having agreed on experimenting with the

pipe, the next thing was to get it and the machinery and start to work.

Graham promptly scurried off to Blacksburg to see if he could get immediate delivery of the portable engine, the various wheels and pulleys and drill tools that he had ordered for a later date, and also to buy five or six ten-foot joints of eight-inch cast-iron pipe, the toughest and best he could find.

Rod remained at home to see about putting up the engine house, the derrick, the Samson post and the working-beam, and to have everything in readiness for the arrival of the machinery. The engine house was merely a shack of rough boards to protect the engine from the weather and to contain the forge for dressing the tools. The derrick, built directly over the site for the well, was a pyramidal frame, ten feet square at the bottom, three at the top, and about thirty feet high. It was strongly braced, and at the top was a stout frame to hold the pulley over which the drill rope would pass. The Samson post was a hewed timber fifteen inches square and twelve feet high, firmly secured in upright position, with iron pieces on top to hold the working-beam in place and yet permit it the rocking motion required in drilling and pumping.

All this building was slow work, and then it took time to rig up the machinery after it had been laboriously hauled by horses all the way from town.

Finally the day arrived when everything was set to begin work. The Bakers were experts at handling drilling apparatus, so Rod, promising that they would not have to go down in any sort of pit, had persuaded them to take charge of operations.

As it was of prime importance that the driving pipe should go down perfectly vertical, because the slightest deflection from the perpendicular would later obstruct the use of the drilling tools, Rod had had the foresight to erect two slideways of wood in the center of the derrick, with clamps to fit around the pipe and hold it in place.

Breathless with interest, the family gathered around to watch. Rod and Will Graham were fidgeting here and there, nearly beside themselves with nervousness. Even stolid Hiram Baker and Bill seemed imbued with the general excitement. With something of a dramatic air Bill got up steam in the engine, then ran to take hold of the pulley rope while his father threw the switch that set the wheels and bands in motion. The battering-ram of heavy timber was slowly raised to the top

of the derrick, then swiftly let fall upon the head of the pipe. The cast iron quivered beneath the force of the blow and sank perceptibly in the earth.

Rod let out a yell, grabbed his partner around the shoulders and cut a wild step. "It's going to work!" he shouted. "We'll get that oil well yet!"

Day after day the workmen kept on at their job, Rod and Will and Little Joe and even Mr. McDougal laboring side by side with them, all anxious to get on to the drilling. When one joint of pipe was driven down, another was placed upon it, the two ends secured by an iron band, and the blows from the battering-ram continued. Every little while the pounding would have to be stopped and the sand-pump connected to the engine to suck up the sand and bits of broken rock that clogged the pipe.

By the end of the week bed rock was struck, at a depth of thirty-six feet. The pipe had gone as far as it could. And it had more than lived up to its inventors' expectations. Because of it, drilling would not be hindered by falling sand and gravel.

The next step in this business of piercing the earth required a weighty set of tools, the center-bit, the auger-stem or drill-bar, the

jars, the sinker-bar and the rope socket averaging about nine hundred pounds and measuring about thirty feet in length when connected, but these were things with which Hiram Baker was familiar, and he handled them accordingly.

In the process of drilling salt wells—and the same procedure was carried out here—the tools were suspended from a stout cable passing over the pulley at the top of the derrick, the cable being coiled around the bull-wheel and played out as needed. After a convenient depth had been reached, the cable was attached, by means of the long temper-screw, to the working-beam, so that the weight could be alternately lifted and dropped by the action of the working-beam in its rocking motion. First the sharp edge of the center-bit did its cutting; then the blunt reamer followed to enlarge the hole and the sand-pump was brought into play to remove the trash. After that, the bit was replaced and the round started all over again.

Two or three feet a day was the most the workmen could make. Frequently they accomplished less than half of that. Sometimes they didn't accomplish anything at all. That was when the bit struck a stubborn boulder. Then one man had to stay constantly in the

derrick to turn the tools as they rose and fell, to prevent them from getting wedged.

The drilling was commenced in May. Through that month, into June, on into July, the work dragged on.

Mr. McDougal began to lose heart. The well was over a hundred feet deep now, and nothing had come out of it but saltish tasting water.

The labor of three weary months was bearing no fruit. Mr. McDougal's despondency began to communicate itself to Will Graham and Rod. Nearly the whole of the two thousand dollars had been spent for machinery, building, wages,—sunk in something that was absolutely worthless, for the brine was of a poor quality and not suitable for salt making.

"Seems we guessed wrong." Graham was long-faced. "Do we quit, and bury the Indian Oil Company—deep, at the bottom of the well?"

Rod nodded gloomily. He was thinking of the time and money wasted. It made him feel sick to talk of abandoning his pet project, but what was the use of sending good money after bad? Graham had better take the hundred dollars left and clear out while he could.

So on Saturday afternoon when Hiram Baker was stopping work, Graham paid him

off and told him he needn't come back,—that they were giving up.

"Hey, papa," Bill called from inside the derrick, "give us a li'l more power! Drill's dropped in a hole—stuck—can't get it out."

The engine started puffing busily again, Rod lent a hand, and after a few minutes the drill was lifted out.

Rather sadly old Mr. Baker took the tools apart, cleaned them, laid them away. For months he had lived so closely with these huge implements that to see them lying scattered was almost like looking upon the dismembered corpse of a friend.

All day Sunday Rod and Graham moped around the house, hardly venturing out in the yard, and sedulously avoiding the path that led to the well. In dismal silence Graham began packing up his things, preparing to go back to Blacksburg on the morrow. From there—anywhere. A life of wandering again.

Rod spent a restless night—sleepless at first, then tormented by dreams. By daybreak he was glad to be up and out in the fresh morning air.

Automatically, his feet took him down to the well. Pain struck at his heart as his eyes fell upon the engine house, the derrick that he had built with such bright hopes.

Idly Rod crawled between the heavy timbers of the derrick, approached the iron tube that he had helped to drive far down into the earth. As he looked down something shining caught his eye. About eight or ten feet below there was something in the pipe. Water, doubtless. Still there was a faint stir in his blood that impelled him to let down a small tin can on a string to satisfy himself that it wasn't anything but water.

Carelessly he jiggled the little can to fill it, then drew it up to the top of the pipe.

CHAPTER VIII

BLACK GOLD

Rod's hand shook so with excitement that the stuff spilled and ran between his fingers, greasy-smooth and ill-smelling, while dark, heavy drops fell from the side of the can.

He hardly dared believe it—but it was petroleum, pure and undiluted by brine. And in a well over a hundred feet deep it had risen to within ten feet of the surface.

There wasn't time to go to the house to tell the good news. Rod lifted his voice in a mighty shout, "Oil—oil—we've struck oil!"

Jan was the first to hear. Running pell-mell to Graham's room, she held her head close to the door and screeched, "Rod's struck oil!" then was off to break the tidings to every member of the family.

From all over the house there suddenly arose an excited buzz of voices, then the doors burst open and a half-mad group poured down the path to the well, Mr. McDougal in

flapping night-shirt, Graham flinging on his clothes as he ran, Granny buttoning as she hobbled along, the others following in various stages of disarray.

Rod met them, waving his tin can beneath their noses and yelling deliriously, "Smell it! smell it! It's oil!"

"Got to get word to Baker!" Graham was calmer than any—and that wasn't so very calm. "Got to get the pumps put in!"

Granny was in the very thick of the fun, peeping down the pipe, dipping her fingers in the oil. "Fortune has no' run frae ye this time," she announced with satisfaction.

Little Joe went on horseback for Hiram Baker, and by mid-day he and Bill had arrived. Friends from near-by farms heard the news and came swarming over, all asking questions, some turning their hands to help install the pumps. By nightfall the apparatus was in place and a barrel or two of pure oil had been taken from the well.

"By gum," chortled Mr. McDougal, beside himself with delight, "we'll ride to riches on a wave of petroleum, eh, lads?"

"This thing's going over big," Will Graham prophesied, his dark eyes shining. "Pretty soon there'll be a mint of money in oil. We'd better buy up all the land we can, so others

can't crowd us out." He jumped on a horse and galloped down to the next farm where Sidney Hill had recently been dipping a little oil, but he found Mr. Baker had already leased it ahead of him.

It seemed that others had the same idea, for all the neighbors knew of the good prices Rod had been getting for his lamp oil. Mr. Merriman, who lived on the tract east of the McDougals, proceeded to tie up all the loose land in that direction. And Mr. Hyler, who owned a tremendous acreage on the other side of the river, bluntly refused all offers of leasing.

As for Rod, while his partner was rushing all over the country in a fruitless endeavor to get his hands on more land, he was completely occupied by affairs at the oil well. With Little Joe as his right-hand man, he was pumping twenty barrels a day, and refining as large a part of it as he could, and sending it straight on down to Blacksburg, determined to take advantage of the present good prices. His chief trouble was to get sufficient barrels, and he had given Bert Dowling an order to buy up every barrel he could lay hands on.

With the force of a cyclone wind, the tidings swept over the state, over the nation, over the world, even, that oil had been struck on

Rainbow River. From every quarter of the globe adventurers poured into the quiet community, until it was quiet no longer. Like the gold rush to the Klondike to stake claims, there was a rush to buy or lease land to sink oil wells. Where yesterday had been a peaceful farming settlement, today was a seething maelstrom. Thousands of people dashing hither and yon, rough board shacks springing up by the hundreds, derricks and engine houses stringing the length of the narrow valley, the hills resounding to the crack of the hammer and the click of the drill. The search for "black gold" was on.

With canny foresight, Mr. Hyler laid out his property in streets and squares and sold lots. The town of Petrolton sprang up as if by magic, with a tiny bank, a sprawling hotel and cheap rooming-houses galore. As always happens in a time of changing fortunes, where wealth is scattered with a lavish hand among those not accustomed to it, gamblers, thieves and hard-eyed men and women drifted into Petrolton. But for one of these, there were dozens of others with their thoughts on work, and business ability as the basis for their hopes in the oil country.

Rod and Graham made no effort to patent their idea of drilling through a pipe, so others

used it freely, and it was this process that hastened the development of the boom times. Where pit digging had been a long and laborious effort, it was now a matter of but a few days to sink a pipe.

For those who had money to purchase machinery, well drilling was resolved to simplicity itself. For those who had merely brawn and the desire, well drilling was more complicated, but still it went on. One of the cheapest methods, a hang-over from the old-time salt makers, was the use of the spring-pole. In this, a green sapling some forty feet in length, with the heavy end fastened in the ground, was slanted over a stout upright, and passed about ten feet above the well. The drilling implements were attached to this pole, and the power was applied by two or three men throwing their weight on the smaller extremity. The downward motion of the pole performed the stroke, while the upward spring brought up the tools. Another similar method was commonly known as kicking down a well. In this, a shorter pole was slanted above the well, with a sort of stirrup attached at the small end. Putting his foot in this stirrup and making a kicking motion, a man was able to raise and lower the pole sufficiently to work the bit. Such methods, while inexpensive,

were slow and wearisome and did not permit sinking a well very deep. Many, however, were put down in this way. Inspired by the general activity, even Nat Coonts, assisted by his womenfolk, started kicking down a well close by his rough cabin.

A good many offers were made to buy or lease Hard-acres Farm, but at Granny's and Rod's advice, Mr. McDougal held on to it, saying that he intended to operate it himself. As their first well was producing so satisfactorily, the owners of the Indian Oil Company hastened to put down another, choosing as a likely spot the ravine in which lay Rainbow Spring. As the Bakers were busy with their own well, which was pumping strong, the McDougals and Graham had to do the work themselves. Experience with the first well had taught them much, so this one went down in a little over six weeks, but it proved to be an entire fizzle, nothing but a dry hole.

Mr. Hyler was standing by when hope was abandoned. "Rod, you missed hitting the underground lake of oil," he commented.

There was a sarcastic light in Will Graham's eyes, but he didn't say anything. He had argued himself hoarse that science had proved that oil came from porous rock formations, from multitudes of tiny spaces between the

grains of the rock itself, and not from any huge underground reservoir. But people had made up their minds and would not be shaken from their belief that there were subterranean lakes and flowing streams of petroleum.

Discouraged but not overwhelmed by the failure of the second well, Rod planned to try a third. Walking over the farm one afternoon, trying to choose a propitious spot, he found himself at the boundary fence near the Coontses' cabin.

Instead of the usual sounds of women laughing and talking, of children playing in the yard, the place was silent, deserted.

Rod frowned. So the Coontses were gone! He had never liked nor admired them. Indeed he had often been vexed at their shiftlessness. But as he stared at the pitiful little house that they had called home, and which was their home no longer, he felt intensely sorry for them. They had been used hard—justly perhaps, but not at all kindly.

About a week before a Mr. Lewis Hume had come to Petrolton and taken a room at the hotel. He said he was a lawyer representing Colonel Frederick Barbour of Philadelphia, who owned property along Rainbow River and who intended to drill for oil on it. The property turned out to be the two hundred

acre tract on which Nat Coonts had built his squatter's cabin, but as Hume had papers to prove Colonel Barbour's ownership, old Nat's squatter claims amounted to nothing. Under the lawyer's brusque commands, the Coontses had been forced out. Hardly knowing where else to go, they had moved their few possessions across to Petrolton, where Mr. Coonts, much against his desires, had been employed immediately as a laborer by some oil company, able-bodied men being scarce.

While Rod's gaze still lingered on the cabin and the abandoned spring-pole and well hole beside it, Little Joe came towards him, walking swiftly across the field.

The younger boy's expression was troubled, and as soon as he reached his brother he blurted out angrily, "That man who drove the Coontses out of their house—he's been snooping around our place! Saw him down by the spring a while ago— What you guess he's up to, this time?"

CHAPTER IX

WAGON TRAINS

"Oh, he's just looking over our oil well. Going to put one down for his boss, I reckon, and wants to see how it's done," Rod answered quickly, ashamed of the uneasy feeling that suddenly plucked at his heart. Was he getting "nerves" and "silly fears" like a woman? Just because Lewis Hume had dealt harshly with the Coonts family was no reason to believe he was now seeking to do the same to them. Besides, he couldn't. The Coontses had been squatters. The McDougals, for generations, had handed down Hard-acres from father to son. Lawyer Hume couldn't take it away—wouldn't even think of trying to take it away.

With such arguments Rod lulled his fears to sleep, showing how little he knew of legal processes or of the legal mind. Later his knowledge of such matters was to be increased, to his sorrow.

Mr. Lewis Hume was not investigating the why and wherefore of oil wells. Beyond a certain casual curiosity in looking at the first petroleum well, he had no interest in them whatever. Colonel Barbour was busy with affairs in the East and couldn't come to superintend the development of his oil property, but he sent an expert mining engineer and the most costly drilling equipment that had ever been seen on Rainbow River. In a little over a month from the time of his arrival, Paul Sands, the engineer, had one well pumping and two others started. With plenty of money to back him, he was going about his business systematically. There was a market for oil, and he was being paid to produce all he could.

Though Lawyer Hume evinced little interest in the workings of Colonel Barbour's oil wells, he continued to stay in Petrolton, and every now and then one of the boys would run across him prowling around Hard-acres Farm. A silent, tight-lipped man, he made no excuses for his trespassing, nor did he offer to tell what he was about. Invariably, after a curt bow or lifting of his hat, he would stroll off haughtily.

"What's he up to?" Little Joe would fretfully demand of his brother. He would have liked to question Mr. Hume himself, but the

man's pompous air somewhat intimidated him. "He worries me."

At this time there were so many other worries on Roderick McDougal's mind that he could hardly pay attention to a new one. Through the winter and into the spring Will Graham had been suffering from a chronic cold that often laid him up for days at a time. This left all the responsibility of the Indian Oil Company on Rod's shoulders, Mr. McDougal being hardly any help at all. Also, competition in the oil game was becoming increasingly keen. A forest of derricks had sprung up the length and breadth of the little valley, and while many straddled dry holes that spelled blasted hopes and money lost, many more were over active wells. And, last but not least, there was the matter of transportation.

Under Rod's supervision, and making use of his methods, Bert Dowling had put up a refinery in Blacksburg, and the greater part of the petroleum was sent down to him, only a few producers attempting to do their own refining. Transportation was in iron-hooped wooden barrels hauled in two-horse wagons, five or seven barrels making a load. As long as the weather was dry, things had gone very well, but now that the spring rains had

set in, the once fairly good dirt road was transformed into a bog pit. Oil dripping from the leaking barrels had mixed with the soil, making a pasty mess that was almost impassable. And yet through it passed hundreds of teams daily, goaded on by swearing, howling drivers and lashing whips.

These teamsters represented a new element in Rainbow River valley. Rough, loud-mouthed men who had floated in on the oil boom, with not the wit or the foresight to operate a well, they were shrewd enough to turn present conditions to their own advantage. Because there was no other way of getting the petroleum down to the refinery, they could ask and get any prices they wanted.

Here was where came the hitch in the program for Rod. To pay above a certain price for hauling was to forfeit the profit on the oil. And though he and Graham now had two wells pumping, they were running their company on a shoe string, so to speak, and still owed for the pumps for the second well. There wasn't any extra cash for grasping wagoners.

After conferring with Will Graham, who was still sick in bed, Rod went across to Petrolton in search of Big John Smith who had been hauling for them. He had gone up in his prices and they had let him go, but they

hadn't been able to get anybody else. Their oil had collected until they were far behind in supplying their orders, so they had decided that for the time being they would have to meet Smith's prices or be forced out of the business.

Rod caught Big John just as he was leaving his house, his two scrawny bays already hitched to the wagon.

"Hi, wait a minute," the boy called. "Got a job for you,—couple o' hundred barrels—"

The man laughed hoarsely. "Ready to loosen up, eh, tightwad? Takes good greenbacks to talk business to me!"

"We'll meet your price," Rod said quietly, holding in his temper. "Two dollars per barrel, I believe you said."

"Like a fish, I said it! Three bucks and no less!" He pulled a plug of tobacco out of his pocket and bit off a big hunk. "But at that, I ain't working for you."

"Why not?" Rod looked his surprise.

"'Cause I got a better job—steady. The Dutchman's signed us up in a wagon-train, He sets the price and gets the orders. Us hauling for nobody now but Mr. Sands over to Colonel Barbour's place. Put that in yo' pipe and smoke it, kid!" Big John's whip stung his horses and the wagon rattled off.

Rod got the same response from every teamster he saw. The wagon-train was out for big money, and it was getting it.

Before Rod left Petrolton he saw the wagon-train going through. It had crossed the river on the rough bridge Sands had built, and was headed toward Blacksburg, an endless line of overloaded wagons, straining horses, shouting men.

In despair, Rod got in his skiff and rowed home. What was he going to do? Wells pumping like clockwork, oil piling up to beat the band. If he couldn't ship it, he couldn't sell it. Then they'd go broke. What was he going to do? He just had to get that oil down to Blacksburg.

CHAPTER X

RIVER WRECKS

Roderick McDougal was in black despair when he went up to report failure to his partner.

Graham received the news grimly. "So Big John turned you down cold," he muttered. "Nobody's going to high-hat us like that, and get away with it. We'll get oil down to Blacksburg in spite of him."

But how? He had no suggestions to offer in that line. Pulling an extra pillow behind his back, he sat propped up in bed, his brow wrinkled in thought. True, there were Bonnie and Black Jack, the two farm horses. But one team, working by itself, wouldn't solve the problem.

Rod stared moodily out of the window. Graham's room was to the front of the house, so he had a view of the steep-banked Rainbow River, and of Petrolton on the far side, its rows upon rows of rough shacks and its

one or two more pretentious buildings showing plainly in the clear March sunshine.

Will Graham's eyes followed his. "Of course, there's the river; but the darned old thing ain't deep enough to float a boat with anything in it. Don't guess it's any use to look at it?"

"Don't guess so," Rod sighed.

No use to look to the river for help, Graham had said. But somehow Rod found his gaze and his hopes held by the tiny, trickling stream. It would be such an easy way to ship oil. Merely load the barrels on boats and let the current carry them downstream. A fellow wouldn't have to do anything but pole and guide. No real work. It'd be fun, a big adventure, like when he used to help the Hylers take their rafts—

"I've got it, I've got it! By the great green-eyed cat, I've got it!" With a yell Rod jumped up from his chair and began leaping and capering around the room. "I've got it!"

"Got what? St. Vitus' dance?" the other grunted testily. "For heaven's sake, quiet down and tell me what you've got."

"Yes, sir, Lieutenant - Captain - General Graham!" Rod brought his heels together with a military click and saluted stiffly, but there was a shine to his eyes he couldn't dim.

"I've got a way to ship the oil. By boats—rafts—on a pond freshet, like the Hylers used to send down logs—"

"By George, that's the idea!" shouted Graham. "We'll go over and see Alf Hyler about it now," and he was all for getting out of bed, dressing, and hunting up the Hyler boys on the minute. But as he began to sneeze and sniffle the instant his feet touched the floor, Rod persuaded him to get back in bed, promising that he'd attend to all arrangements with dispatch.

So again that day Rod McDougal rowed his skiff across the river, this time in search of the Hyler boys, Alfred, Bob and Ezra.

Rod found them at what had been the old Hyler farmhouse, but was now a city dwelling, the pastures and gardens having been cut up and sold as fifty-foot lots.

Eagerly Rod explained what he was after. As he finished, a slow smile spread over Alf's freckled face. "Golly," he muttered, "there's something to that! Funny nobody thought of it before."

"Sure, we'll run you a freshet," put in Bob and Ezra together. "This is going to be more fun than sending down logs."

"There's a couple of fellows been logging for us, but they aren't busy now," added the

older brother. "You might get them to help with the rafts."

For a long while they discussed plans, so it was almost dark when Rod got home. His news, however, was as good as a dose of medicine for Graham. Immediately he began to feel better, and next day he insisted on starting to work with the others.

Little Joe, Mr. McDougal, and even Uncle Angus threw themselves into the scheme with enthusiasm. All took up axes and set to cutting trees to make into rafts. From the neighbors Rod had got hold of a few small boats, but the mainstay of the shipment was to be the rafts.

While Hard-acres was resounding to the noise of axe and hammer, Bill Baker came up to investigate. His father was getting overstocked on oil, so he wanted to know if he couldn't get in on this river business too.

"Come along, Buddy; the water's fine," Rod cordially invited, never missing a lick at the sapling he was cutting.

By the end of the week Bob Hyler brought down word that the pond was full of water. The little oil fleet was about finished too. It comprised a half dozen big rafts piled high with barrels securely tied on with ropes, and several small skiffs loaded with from three

to five barrels. As barrels were expensive, Mr. Baker was trying a further experiment, and had run oil directly into an open boat, to see if it could be shipped in bulk.

Thursday was set as the eventful day.

News of the McDougal venture had spread through Petrolton and, judging by the crowd that lined the banks, half the population had turned out to watch the excitement. Rod had had no lack of offers from young fellows to help man the boats. It seemed that everybody wanted a share in the thrills.

On the Hard-acres side of the river, on a jutting bluff, stood Mrs. McDougal, Granny and the girls. Mrs. McDougal's face was grave. She had had a brother drowned years ago and she knew the danger of swift floods, but the other faces were gay with smiles.

With much shouting and bustling about, the little fleet was put in readiness, the crew (two or four men to each raft, according to size) gotten aboard, and the lines made fast to trees or posts. This last was a very necessary precaution, according to Alf Hyler's experience, for if a vessel wasn't held steady until the water had attained full headway, it would run ahead of the rise and ground on the first sandbar, making a barrier for the boats behind to crash into or run over.

The Hyler dam was so arranged that the strong uprights, called brackets or splash-boards, could be cut loose and the accumulated water allowed to flow into the narrow river bed, furnishing a depth of three or four feet, in the shallow places, the flood lasting a couple of hours or more. So it was imperative that the starting of the rafts be timed right. Too early was to invite danger; too late was not to get down at all.

Will Graham, Alf Hyler and two fellows from Petrolton were on a big raft. Rod, Little Joe and the Merriman twins were on another of equal size. Bob, Ezra, Mr. McDougal and others had charge of the smaller rafts and boats. Bill Baker and Nat Coonts were on a small raft, but they also had the open boat full of oil tied on behind.

Rod was not in the lead, for Alf Hyler was to be the main pilot. Still Rod's face was set in anxious lines, for he felt the responsibility of the success or failure of this venture. With nerves taut to breaking point, he grasped his long pole and waited for the onrush of waters.

From the crowd on the bank there went up a shout, "There it comes! Look, look! Coming around the bend!"

There was a rumble like distant thunder. Then Rod felt his heavy raft quiver, and

brownish foam-streaked water swirled up around them, sped on past them. The light boats began to bob up and down, and the tremendous rafts began to pull strongly on their ropes.

Bill Baker lost his head and began to jerk at his rope to cast off.

Alf Hyler saw him. "Wait—wait, you blockhead!" he roared. "Do ya want us to run ya down?"

Bill dropped the rope as if it burnt his hand.

Swiftly the flood rose higher.

Abruptly Alf thundered his command, "Let 'er go!"

Instantly there was wild confusion. Some cut their ropes to get a good start, others stopped to untie and got in the way of those that were already loose. Every pilot was shouting directions to his crew. There was a hubbub of voices from the bank. Rod thought he heard Granny crying, "Guid luck, guid luck to ye!" but he didn't dare look up. He was poling for dear life, trying to keep the raft steady and not swamp a small boat that was wedged in between him and Graham.

Gradually the confusion evolved itself into something like order. With Alf Hyler leading the way, the fleet dropped down river.

The start had been made without mishap,

but that didn't assure that trouble was over, not by any means. Rod noted with dismay that Bill Baker's raft was his nearest neighbor. And Bill was notably haphazard. Bill's skiff was swaying terribly too, with its unstable load, and was sloshing oil in every direction.

The noise of the crowd on the banks was growing fainter, and the various crews were settling down to steady work. Rod was poling cautiously, trying not to get too near Bill's skiff, when a wave from a rolling raft behind set the loose oil to rocking violently.

"Hold her, Bill!" Rod called out in warning. "Put out your sweep to get her steady."

But the warning had come too late. With a desperate lurch the little boat capsized and spilled its contents into the river. There was nothing left for Bill to do but to cut it loose and leave it adrift, to be crushed or to come safely through as best it might.

As the fleet rounded a long sloping point of land, Rod felt that he was in for some trouble. He had edged too close to the shore and the raft scraped bottom and for a minute hung stationary, with those behind pounding into it. But by manful poling he and his crew managed to push off.

Alf Hyler had warned them all to look out

for the railroad bridge down at Wilson's Crossing. There was usually a whirlpool by the big stone pier, he had said, and it was a nasty thing to get into. So as Wilson's Crossing and its high, old-fashioned bridge came in sight, Rod began to eye the current and plan the best way to go through. Several times he had helped bring down logs, and he remembered how hard it was to get through the narrow channel between the pier and the abutments.

Bill Baker, however, had had no such experience to remember, and the Hylers' warning had sat lightly on his ears. Therefore when Rod began to slow up, he daringly scooted in front, with a triumphant yell.

His triumph was short-lived, however. With demoniac frenzy the whirling current caught the raft and flung it broadside against the stone pillar, tearing the barrels loose and flinging the two men face down upon the splintered logs.

And not a hundred feet behind, Rod's raft and the rest of the fleet was bearing down upon them, tons upon tons of timber and oil, to run them down and crush them.

CHAPTER XI

LOST TOOLS

In a flash Rod realized the peril of the two clinging to the wreck. In the same instant he knew that if they were to be saved, he and his crew would have to do the saving. His was the nearest raft; was, in fact, the only one that could approach on the right side now. Alf Hyler's clumsy vessel had been caught in the strong current that pulled to the left of the pier, and was already far downstream, kept in upright position only by the skill of the pilot. The other rafts were going helter-skelter, some of the raftsmen seeming to have lost their heads entirely.

"Hold to the right! Keep her steady!" Rod shouted his commands to the Merriman twins. "We got to get 'em off! Little Joe, stand by me—"

Baker's raft had been forced broadside upon the pier of the bridge, where it hung like a pair of old-fashioned saddle-bags. Soon it

would be broken in twain by the pounding of the water and the onrushing fleet. The barrels had been ripped loose from the thongs that held them and bobbed madly about in the stream. Nat Coonts and Bill clung desperately to the swaying logs. Both of them could swim, but it would be an act of suicide to leap into the river in front of the oil boats. It seemed equally dangerous to remain where they were. Fortunately the two of them were on the same side of the wreck, and that would make rescue somewhat easier.

Rod laid down his sweep. "Catch hold of my belt," he yelled to Little Joe. "Brace against the barrels,—and hold me tight! I'm going to try to pick 'em off."

Like a cat waiting to spring, Rod waited on the edge of the raft for the moment of contact. Valiantly his henchmen flung their weight upon the poles, swung the heavy logs over to the right, over toward the wreck. Rod leaned far over, foot braced against the edge, and clutched Nat Coonts' outstretched hands. The muscles of his arms were standing out like ropes as he dragged the terrified man to safety.

Speedily he turned to reach Bill. This work had to be done in split seconds. In a minute they would drift apart.

Bill was ready, but in his fright he failed to let Rod get good hold on him. He jumped, slipped, and while he landed aboard the raft, one leg was down between the logs.

Rod caught him, tried to drag him up, but he wasn't quick enough. The raft banged against the wreck, and snapped the bone in Bill's leg as if it had been a brittle reed.

"Hi, lend a hand!—She's getting away from us!" bellowed Tom Merriman.

Nat Coonts took charge of Bill while Rod and Little Joe jumped to their poles. The heavy vessel was careening madly as the waters of the whirlpool sucked at it.

With all hands on duty, the raft was brought under control. As it finally got from under the bridge and sped on down the river, Rod looked back. He was leaving a terrible mess behind. Two rafts had run into the wreck. The crews were trying to push off, but the other boats were crowding down upon them.

Rod shrugged his shoulders. Even if he could stop and go back, he could do nothing to help. Shipping oil by river wasn't as easy as he thought. He guessed he'd lose a good many barrels this one trip.

But a little later when he looked back again, he saw the rest of the oil fleet racing after

him. Things hadn't bungled as bad as he had feared.

The entry into Blacksburg was nothing short of triumphal. A crowd was at the landing to see the rafts come in, and they cheered each crew as they tied up and began unloading. Right away Rod saw Bert Dowling and Susan waving to him, so he turned Bill Baker over to them to be taken to a doctor. Then he set about checking up the barrels that had made the trip down in safety.

"Came through pretty good, eh, partner?" Graham was gloating, as the count ran up. "We'll do this thing again."

The Indian Oil Company had made such a success of its shipment by water that the idea spread among other well operators. Many adopted the plan, and soon a motley of boats—from the large flat-bottomed barges of one thousand barrel capacity to the tiny "guiper" holding about twenty-five barrels—made their appearance on Rainbow River. And the Hyler boys began to rake in the money. Their pond freshets were in great demand, some well owners paying from one hundred to two hundred and fifty dollars for a flood.

At first the teamsters were loud in their protests against this new mode of transportation, for they found themselves losing much

of their regular work. But soon it was discovered that boats sent down on a flood had to be hauled back up the shallow stream by horses, so the teamsters came into their own again. The lot of the tow-horses, however, was a hard one. Remaining in the greasy water hour upon hour brought out terrible sores upon their legs, and a team didn't last long. But what did the drivers care? In a few days at this kind of work they could earn the price of several teams.

As the outlook for the oil country brightened, Rod McDougal and Graham began drilling another well, choosing a spot on the hill behind the first oil spring, about an eighth of a mile from the river.

"Sair beginning, guid ending," Granny encouraged them. And they needed her encouragement, for it seemed that with this well they ran into every sort of trouble that could befall oil men. Tools stuck and had to be jarred loose, engine trouble caused endless delay, the sand-pump broke and required costly repairs. Then there was the matter of the mud vein.

A mud vein is a thin stratum of mud or clay, several inches in thickness, and while some operators regard it as indicating an abundant supply of petroleum, all operators agree that

it is a most confounded nuisance. In the midst of the drilling the vein was tapped and the mud flowed into the well, covering the drill and hardening almost as quickly as plaster of Paris. Graham was in charge at the time. It cost him a good day's work, cutting through the mud with a spear-shaped instrument until the top of the drill was uncovered and the tools could be jarred loose and drawn up to be cleaned.

Not everyone along Rainbow River, however, was suffering from this run of bad luck. With the Coonts family it was quite the reverse. The shock of being expelled from his home had seemed to stir old Nat from his lazy habits. With labor scarce in Petrolton, he had easily gotten work as a wagoner, had saved his money, leased a half-acre of land and put down a well. And the well had come in a success. Paul Sands had offered him thirty thousand dollars for it, and Nat had accepted on the spot. So now he and his one-time penniless family were living like millionaires. They had moved into the most expensive rooms at the hotel, he flashed diamond studs and gold watch chains, and Mrs. Coonts and the girls had about bought up the town's stock of silk dresses. Never having had their hands on money before, they didn't know any

other way to use it than to spend, spend, spend.

One afternoon Rod was standing on the front porch, talking to Flora and Janet about the Coontses' sudden rise to fortune.

"Mrs. Coonts says she's going to have a family tree drawn," laughed Flora. "She says Mr. Coonts comes of a very fine family, and now that he has money he can live in the style in which he was raised."

"Maybe she'll make him live in style, but I bet you anything she won't let him talk," put in Jan, a twinkle in her eyes. "She's hiding something, and she's so scared he'll tell about it that she'll hardly let him open his mouth."

"Rod, do you really think he has a past?" Flora was asking interestedly, when Little Joe came running up the path and burst into their conversation.

"String's broke!" he shouted. "Tools lost down the well!"

CHAPTER XII

FIVE CENTS A BARREL

This was a catastrophe Rod had been dreading. Several of the wells in the neighborhood had had their string of tools break, and while only one had had to be abandoned for this cause, the process of fishing up the broken implements had been slow and tiresome.

Half disgusted with the oil business, and wholly disgusted with this particular well that caused so much trouble, Rod went down to see what he could do. As he had expected, the drillman hadn't been aware that anything was wrong until he started to draw up the string, so perhaps for an hour or two he had been pounding on the broken drill with the heavy auger-stem.

Only the week before Paul Sands had run into similar trouble and had rigged up some apparatus to fish with, so Graham hustled over to him to borrow. Night caught them before they had more than gotten the semi-

circular cutting instrument in place, but next morning they were on the job early, clearing away the accumulation around the head of the bit, and trying to fit a spring socket over some protuberance on the drill, so it could be drawn up. This was no easy matter, for all operations had to be performed through the narrow bore of the hole, far below the surface of the earth, beyond the reach of the eye. But after hours upon hours of labor, the broken tool was recovered, another was put in its place, and drilling was recommenced.

Day after day, week after week, the work went on. Inch by inch, foot by foot, the drill forced itself down.

"Looks like we've struck another dry hole," Graham complained. "How many weeks have we been at this thing? Three—four—"

Rod wasn't listening to him. His ear had caught another sound, a faint rumbling deep down within the earth. He leaned closer to the drill pipe. The rumbling seemed louder—nearer—nearer—

"Run! Run!" Rod shouted, ducking out between the crossbeams of the derrick. "Earthquake—or something—"

Graham, Little Joe, the Merriman boy who was helping at the drill, all ran. And not a minute too soon.

With roaring and hissing like letting off steam from a giant boiler, a column of gas and oil came rushing up through the well, flinging the heavy tools up in the air as if they were sticks, and throwing the men to the ground by the force of the eruption. A tremendous geyser of oil, it shot up fifty feet or more, far above the top of the derrick. A fountain of rainbow beauty, but an alarming one too.

Rod raised up. He was drenched with oil, but unhurt. For a long minute he stared at the marvel. Instead of diminishing after the shock of the explosion, the flow of oil seemed to increase. It was flowing all over the ground, turning the hollows into petroleum lakes and running off in many little rivulets.

"Great Caesar!" he muttered. "A gusher,—we've got a gusher!"

The others were as dazed as he. Like men bereft of their wits, they gazed helplessly at the spouting oil.

Rod was the first to recover his common sense. A fortune in oil was running off to the river, going to waste. Something had to be done to save it.

"Get shovels,—spades,—anything to dig with!" he yelled, dashing toward the tool shed. "Got to put down a trench to catch the oil!"

In a frenzy they fell to work, digging a deep circular moat around the well. This filled almost before they had it finished, and they had to start another.

Aroused by the noise, the womenfolk came running out to see what was happening. "Look, look,—an artesian well of petroleum!" they cried.

Even unemotional Mrs. McDougal caught the excitement, and as for Granny, she was fairly beside herself. "The Lord hae gied ye na sma' giftie here," she crowed delightedly. "Whaur else is sic a sight to be seen?"

Indeed it was a scene to look upon with awe, the mighty fountain tossing its wealth heavenward amid a yellowish cloud of gas and spray.

While Rod was still digging the first ditch, the news was told in Petrolton, and people came hurrying over by the score, by the hundreds, to view the marvel. By nightfall the telegraph wires all over the United States were flashing the glad tidings that the oil country's first gusher had come in.

The result of this publicity was that a second oil boom was inaugurated. By the thousands people poured into Rainbow River Valley. Drilling for oil was not a business that required years of training or long experience to bring success. By investing a few dollars

a man had the chance of winning a fortune in two or three months. So again there was a wild scramble to secure land or leases for land in the petroleum region. All up and down the river farms were sold or leased at skyrocket prices, and old and young lost and made fortunes in speculation.

The McDougal gusher was the result of deep drilling releasing the pressure of imprisoned gas. Others took the hint and many gushers came in with their characteristic bang and roar.

With their well flowing fifteen hundred barrels a day, and only vats dug in the ground to hold the flood, there hung over Graham and Rod the ever present danger of fire. Always they had someone stationed as a guard, not to let visitors smoke, or bring matches or any kind of spark to the oil-soaked area.

As fast as they could, they barreled the petroleum and shipped it off, for while prices were good now, they foresaw a drop. With so many wells already producing, there was bound to be an oversupply for the very limited market. Yet in feverish haste men were going on drilling well after well, though they knew to a certainty that they were knocking the bottom out of already unstable prices. There was a reason for this, however. Petroleum

wells are erratic. Close one to await better prices, and perhaps the flow will stop altogether, or the oil will drain into another well and the other man will get the profit.

The drop, however, came sooner than Rod had expected. From the heights of delirious joy, the oil country descended to the depths of despair. Panic swept over the valley. Everyone had oil to sell,—and there was no one to buy. If there had been a purchaser, oil could have been bought anywhere along the river for five cents a barrel. Transportation charges were so high that it cost more than it was worth to try to ship it to the refinery. In a week hundreds of fortunes were lost, and the sheriff had his hands full selling machinery for debt.

Like so many others, the Indian Oil Company still owed money on its equipment. If this depression continued, Rod and Graham would find themselves facing ruin.

Restlessly Will Graham tramped through the house and yard. Inactivity sat hard on him. "The joke sure is on us," he groaned. "Here we've been sweating to get oil, and now we've got it, it's not worth a darn."

"It's going to be worth something some day," Rod put in soberly. "It'd be worth something now if a demand could be created."

"If—if—if!" the other cried bitterly. "Everything depends on *if*. I'm sick of the whole business. I wish I was in Cuba, India, China,—anywhere but here!"

Roderick's thoughts were not quite so rebellious as his partner's but they were more revolutionary. He had seized upon an idea, and with it he hoped to turn the existing order of things upside down. His idea, which he put into immediate execution, was to write to George Oliver, the chemist in Blacksburg, to get him to experiment with oil and see if some new and valuable use couldn't be evolved.

Oliver's answer was to arrive in person at Hard-acres Farm, to talk the matter over.

As things turned out, there was a good deal of talking done, but little of it related to the oil industry.

Flora and Janet were away from home when young Mr. Oliver, dressed in a light summer suit and looking exceedingly handsome, put in appearance. They arrived late in the afternoon while he and Rod were sitting on the front porch deep in a discussion of the possible by-products of petroleum.

"Why, here are the girls," Rod remarked, and casually performed introductions, totally unconscious of the importance of the moment to two of those present. Though, when he

tried to steer the conversation back to its former channel, he became aware that something had happened to his guest, for all he could get was vague answers, or perhaps no answers at all.

"Mr. Oliver, have you seen the flowing well?" cooed Flora.

George had already looked the gusher over once, but he was perfectly willing to look it over again if Flora would be his guide, so they strolled off together in the soft summer twilight.

Rod stared after them in amazement. He had brought the chemist up here to experiment with oil, not to fall head over heels in love with his sister.

Jan was staring too. "What's his first name?" she asked.

"George,—G. W. Oliver."

"George Washington, I suppose," Jan laughed. "Every George W. seems to be a namesake of the Father of His Country."

"Don't know what his middle name is, Miss Inquisitive." Rod pinched her cheek. "But I'd be mighty thankful if he'd find me some way to use my oil."

George Oliver visited at the McDougals for several days, and he tried faithfully to stay away from Flora's society long enough to

make some tests with the petroleum. He did accomplish something, too, for one morning, after several hours spent in the abandoned refinery, he hunted up Rod with the news that he had a scheme that might work.

CHAPTER XIII

A RIVER OF FIRE

"You've heard it talked about, I guess,—the branch line the railroad's planning to run from Blacksburg to Petrolton."

Rod frowned. George was like that, always had to talk around his subject. "Sure, I've heard of it," he snapped. "But what's that got to do with your scheme?"

"Got plenty to do." George's grin showed he was proud of himself. "Trains can't run without lubricating oil."

The idea sank slowly into Rod's head. Suddenly he grasped it, and an excited, happy laugh broke from him. "Great guns, man, lubricating oil! We've been using it for axle grease for years. Can we really make—"

Oliver assumed a serious, scientific air. " 'Friction, not motion, is the great destroyer of machinery,' " he quoted. "The fat oils now in use as lubricators are not satisfactory. They become rancid with age, and cold

weather makes them stiff and unwieldy. I believe petroleum has much to recommend it as a lubricant."

"You haven't tried it out—for that? Not when you were experimenting in your laboratary?"

The chemist shook his head. "Didn't think of it then. Your head, and mine too, was set on making something to burn in a lamp. It was hearing about the railroad that started me to thinking on this line. You remember those samples you left with me, long time ago? Well, I've been keeping tab on 'em off and on. During the coldest spell we had last winter the oil remained fluid."

"And it doesn't form a crust when exposed to the air," Rod broke in. "Don't believe it would gum up delicate machinery, either."

Next day Oliver went back to Blacksburg under strict orders to perfect a lubricating oil.

Rod was greatly excited over what he called his "lucky break," and could hardly wait to get word from George to come down and inspect the new product. In a couple of weeks the summons came, and the day after that, Rod was sitting in the chemist's laboratory.

"Feel it,—just as smooth as silk!" Rod had to rub a pinch of grease between his fingers.

"Bert Dowling's been trying it out on some of his refinery machinery,—says it's the slickest running stuff he ever used."

The problem now was to get the new lubricator before its possible market. Rod had the happy thought of asking a railroad man he knew, over on the State-Central Line, to give it a trial.

"Oh yes, I'll give it a fair show," old Mr. Dean grunted. "Folks always wanting me to try new things. Not many of 'em any good though."

Rod waited in Blacksburg to hear what Mr. Dean had to say. The old railroader had been so unenthusiastic that Rod received quite a surprise when he marched into the laboratory, his face one broad smile, and announced that that grease was the best he'd ever used, that he'd sent a sample to the District Superintendent and was trying to get the boys a big order.

When the order came, it was a big one. Bert Dowling had to be called into the conference, and his refinery commandeered to turn out the new Petro-Greaso, as George insisted on naming it.

With the finding of a new use for petroleum, the oil business seemed to take a new lease on life. Fair prices were revived, new wells were

put down, old ones were operated again, and Rainbow River valley resumed its accustomed activity.

Now that an immense freight traffic was again coming down the river, the jealous railroads commenced work in earnest, hurrying to lay the track from Blacksburg to the oil country before the present boom time passed. "The first hoot of the locomotive will turn all the trade away from the river," bragged the head engineer. "Our forty-barrel tanks on platform cars will be the best way yet of shipping."

One day in Petrolton, Rod ran across Nat Coonts, stouter than ever, and exuding prosperity from the flash of his gold tooth to the shine of his new tan boots. Away from his wife, Mr. Coonts felt at ease to talk, and he was so wound up that Rod could hardly get away from him.

"Strange things is happening 'round here," Mr. Coonts said, as he buttonholed his victim. "Ghosts showing folks where to dig oil wells. Wouldn't believe sech things if I hadn't seen 'em myself. But, buddy, I seen 'em!"

Rod squirmed. He was anxious to get away, for he had business to attend to. "Why, Mr. Coonts," he protested, "surely you haven't seen a ghost?"

"No-o, not exactly the ghost," old Nat admitted. "But I seen the well. And I been talking to Mr. Giddings. It's a mighty quare experience he's been having. A paying one, I'd say, though."

Spiritualism was having quite a vogue in Petrolton. Many wild tales were being told of people dreaming where to sink a well, acting on their dream, and finding oil. This story of Mark Giddings was one of the latest. It seemed that Mr. Giddings was strolling down the road beyond Petrolton, when some supernatural power took possession of him, lifted him across a high board fence and dropped him in the middle of a field, while a voice whispered the command, "Drill here!" Mr. Giddings had taken the advice, and a modest gusher had come in.

"I wish some spirit 'd come along and talk to me. I'd do jist what it said do," remarked Mr. Coonts soberly.

Rod was tempted to wish some good spirit would come along and advise his partner to cheer up. In spite of business being good, and the future again presenting a rosy face, Will Graham was suffering an attack of melancholy. The truth was that the wanderlust was upon him. He was tired of oil wells, was longing to be off and on the go again. All his life

he had been free to come and go as he pleased, and this being forever tied down to one spot irked him.

Little Joe, too, was in moody humor. For the past year or two he had thrown himself heart and soul into the oil industry, but it had brought him only temporary satisfaction. He could see how interested and happy Rod was in his work; he wished he could find that same interest and happiness, but it seemed impossible. He had vague longings of wanting to accomplish something worth while, but he hardly knew what.

Rod seemed to be the only one at peace with himself and the world. He was head over heels in work, and having a great time of it. He was putting up four enormous tanks. They were cylindrical affairs of tough pine planks stoutly hooped in iron, each holding about a thousand barrels. These were to be connected by pipes to the flowing well, and would constitute emergency reservoirs should prices drop low again.

July ushered in a spell of hot, sultry weather. It also brought two visitors to the Rainbow River community. Lawyer Hume, who had been away for some months, was again seen in Petrolton; likewise George Oliver, who wrote that he had to see Roderick

on business, but who, when he came, made it his business to see less of Rod and more of his sister.

Janet and Flora had been weaving flower baskets out of pliable reeds, but their supply of material had given out and they were anxious to get some more.

"I know where there's some reeds growing," Jan insisted. "That tiny island about half a mile down the river is simply covered with 'em." She turned to Rod. "You'll take us down there in the skiff, to get some, won't you?"

"Not this morning," Rod called back, already halfway down the front steps. "Too busy. And I'm working George too, so don't call on him."

"We'll go by ourselves then, Mr. Smarty," Jan flung after him. "Flo and I know how to row a boat."

Flora would have much preferred to have one of the boys along for her tastes were not as athletic as Jan's, but she was desirous of getting her basket finished soon, so she agreed to her sister's proposal.

Mrs. McDougal saw them as they were leaving the house a while later, equipped with knives and scissors and wearing broad sun hats.

"Where are you going?" she called.

"Oh, down the river a little way, to get some stuff for our baskets."

The woman glanced at the sky, where dun-colored clouds were piling up on the horizon. "Looks like a rain's coming," she observed. "Air's heavy, mucky. Aren't you afraid you'll get caught in a storm?"

Flora hesitated. It was clouding up,—and her new blue linen was becoming. She didn't want to chance ruining it.

Impatiently Jan tugged at her hand. "A little wetting won't hurt us, Mumsie. Come on, Flo."

So the girls went on to the river and soon were in the skiff, drifting idly down to the island.

Unfortunately Mrs. McDougal was a better weather prophet than she knew. Before an hour had passed, a storm swept up from the south and burst in fury over the valley, with a roaring of thunder like a hundred cavalry charges and a blinding downpour of rain.

At the warning of the first big drops, Rod and George, who had been working at the pipes near the well, ran for the shelter of the front porch.

"Did ye get wet?" Granny appeared at the door.

"Not much," George's eyes were on the sky.

"Nothing but a bit of summer thunder. See, the clouds are beginning to clear away."

The downpour swiftly subsided to a mere flurry of raindrops. Then there came a vivid lightning flash and a terrific clap of thunder.

"That's the end, I guess," Rod started to say. But before the words were out of his mouth, before the roll of the thunder had died away, there came a second blinding flare of light. This light, however, came from the earth, leaping heavenward,—not from the heavens toward the earth.

A scream tore from Rod's throat. "Lightning's struck the gusher!"

In an instant he and Oliver were out of the house, on their way down to the well.

The blazing fountain of oil shot up into the air, a terrifying but magnificent spectacle. From its sides it threw off fiery jets as the huge column of flame swayed to and fro in the wind. From the top rolled out a mass of thick black smoke.

Before the boys were halfway down the hill, there came a third furious burst of flame, a deafening roar, and the ground beneath them shook as if from an earthquake. Rod's biggest storage tank, the only one filled with oil, had exploded.

The boys paused, dazed, stupefied by the

frightful thing happening under their very eyes. From the thousands of gallons contained in the tank, from the flowing well itself, a stream of liquid flame was pouring over the ground, filling the trench of the steep hillside path to the river. As they stood watching, the blazing oil reached the river, spread swiftly, silently over its surface, was caught up by the current and began its inexorable advance downstream.

George Oliver's eyes met Rod's and they stared at each other in horror. Flora and Janet were out in the skiff, right in the path of that onrushing river of fire.

CHAPTER XIV

VAIN EFFORTS

"The girls!" gasped Rod.

No more than that, but the other understood. In an instant they were running toward the river, then down the path along its bank.

The island was a half-mile away, but Jan and Flora might be nearer, might have started home. Perhaps they had already seen the fire and had made their way to the shore and safety. And if they hadn't—the current of Rainbow River wasn't so swift but that—Yes, surely, there'd be time to warn them.

His gaze was half on the ground,—he had to choose his steps, no time for stumbling—half on the water, searching every shrub-grown cove for a sight of the boat.

Though Roderick McDougal was the taller and known as a sprinter, yet George Oliver kept ahead of him. Love was winging his feet. Flora, golden-haired, laughing Flora, who had cast her spell upon him, was in dan-

ger. He was breathing heavily, swaying like a man near exhaustion, but still he kept ahead.

Though the fire leaped high above the well, such quantities of oil poured out that it could not be consumed in one tapering flame, but continued to spread in widening circles of destruction. The overflow that rushed down to the river found the intensity of its force only increased by the water. Spurting lines of blazing oil ran in different directions over the surface of the river, reaching up to the height of fifteen or twenty feet and flinging off showers of bright spangles. Over half of the width of the river was now covered by the burning oil, crackling and snapping with horrible din.

With this noise sounding in their ears, with the knowledge that each minute the downsweeping mass of fire was growing greater, not less, the boys espied the skiff in midstream, the two girls rowing wildly in their efforts to reach shore. They had evidently just seen their danger and were frantic with terror, for while they were slanting across to a landing, they were still rowing upstream, coming toward the fire that was already traveling fast enough to meet them.

Rod shouted to attract their attention and pointed down the river. "Turn down—down! Head that way!"

Flora started to obey. Jan, in desperate fright, pulled against her. Flora's oar caught under the boat, was jerked out of her hand, and the current swiftly carried it out of reach.

Jan kept on rowing, but as all the pull was from one side, the little boat zigzagged in an awkward circle.

"Good heavens!" Rod groaned. Neither of the girls could swim. Then he began to shout directions. "Paddle one side, then the other! Get in the current and drift! I'll wade out on the point and drag you in! Keep your heads! There's plenty of time!"

He started on a run to the sand-bar that jutted out in a long sloping point. Plenty of time? He wasn't so sure.

He glanced back. Where was George?

Then he saw him,—saw a slick black head bobbing in the water, saw long, powerful strokes taking the swimmer out to the boat.

Rod stared in horror. It was foolishness, what George was trying to do. What if he did retrieve the lost paddle? With both girls so excited, he'd surely upset the boat if he attempted to climb in. And he didn't know they couldn't swim.

Then Rod saw the paddle drift past. Was the boy clean out of his head? He could have caught it. What was he trying to do?

Rod flung off his coat, ready to plunge into the water. If there was an upset, he had to be there to help.

Abruptly he paused. Now he understood what George was up to. The sight of a rescuer had calmed the screaming girls. In trust they looked on while he put a hand to the boat, began to push as he swam to shore.

"Guide—head to right!" he called directions.

Numb with fright, Flora tried to steer as he told her. Slowly, laboriously, progress was made.

Suddenly Rod dived, struck out from the land. He had seen something that George Oliver, with his face to the boat, had not seen. A wind had begun blowing downstream, blowing the burning oil more swiftly than the current ran. The fire was sweeping downstream faster, ever faster.

Rod was trembling from excitement, but he was not as exhausted as George. As soon as he caught hold of the boat, it jumped forward with new power. But even with that, there was hardly a margin of safety left. The heat from the fire was blistering. Every now and then points of flame would bend low in the wind and lick out hungry tongues toward the boat and its human freight.

There came a scream from Jan. She was fighting with the paddle at the back of the boat, almost as if she were trying to push the fire away, to frighten it off.

A spangle of fire fell on George's shoulder wet with the oily water. Before it could ignite, Flora had brushed it off.

Only a few yards more, then shallow water —a chance to escape. But by the time Rod's feet touched ground, the back of the boat was blazing.

Jan jumped. Rod caught her, dragged her up the sloping bluff.

Flora was out of the boat, in water up to her waist, tugging at George's arm.

"Rod,—help me! He's fainted!" she shrieked. "He'll be killed!"

Again Rod was in the river. With one hand he pushed away the burning boat, with the other he reached for George. With fire eddying about them, having to splash with their hands to keep it back, he and Flora frantically pulled the unconscious boy to the shore and lifted him up to safety.

Rod knew something of first-aid treatment. While the river of fire rushed and roared angrily past them, cheated of its prey, he was exercising arms and chest, working the breath of life back into his friend.

Finally George came to, utterly worn out but with joy in his heart, for Flora was bending over him, love and fear on her face. Weakly he caught at her hand, held it to his cheek, wearily shut his eyes.

The progress back to the house was slow, for though they had sat on the ground a long time, resting and waiting for George to recover his strength, all four were pretty much tired out by what they had gone through.

So intent had Rod been on rescuing his sisters from the fiery waters that he had about forgotten the source of the blaze. It came to him almost as a shock when he again sighted the burning well with hundreds of people milling about it. Fearful curiosity had drawn crowds from Petrolton, though to cross they had had to go some way up the stream, well out of range of the fire darts. Some were standing stock-still, apparently stupefied by the frightful spectacle. Some were rushing hither and yon, with spades and shovels, trying to stop the fire by throwing dirt into the well, so crazed by excitement as not to see how futile were their puny efforts. Others were frankly enjoying the holocaust; it was as good as a show, and was costing them nothing.

Graham was disconsolate. With his arms

folded, he gazed at the fire in stony silence. Hundreds, thousands of dollars were being lost as that thick black smoke rolled skyward. What would have been a fortune in their pockets was now going up in flame.

No telling how long he would have stood there, busy with his own dreary thoughts, but a question from Rod aroused him. "We've got to do something about this. What can we do?"

Graham pulled himself together with a jerk and began to search the corners of his mind for some experience or knowledge of the past that would help with this difficult present.

When one thinks of putting out a blaze, one naturally turns first to water, for water is the most common extinguishing agent. It acts by cooling the flaming mass below the burning point, and also creates a blanket of steam that shuts out the oxygen of the air and smothers the fire. But water could not well be used on an oil fire for, as demonstrated down at the river, the burning oil will likely float off on the water and spread the conflagration. For a small fire, sand or dirt could be thrown on, or chemicals used in carrying out the same smothering process. But none of these methods seemed practical in

taming a monster of fire, roaring its defiance to man.

Traveling in a circle, Graham's mind came back to water, and its powerful child, steam. He had heard of fires being smothered by steam and knew that equipment was made for this purpose—portable boilers, pipes and sprays.

Steam was the only suggestion he had to offer, and Rod seized upon it eagerly. Could equipment be gotten in Blacksburg? He would send down for it immediately.

On every side dark figures were silhouetted against the red glare, while shrieks, yells and talk in high-pitched voices mingled with the roaring and snapping of the fire. It was as if a nightmare of horrors had been let loose upon the quiet farm.

With tears of thankfulness, Granny and Mrs. McDougal fell upon Flora and Janet. They had been frightened nearly out of their wits when they had remembered about the girls being out in the boat.

"Sorry about this, old fellow!" Paul Sands clapped Rod on the shoulder. "Looks like this fire's going to keep on burning till the well's dry. Not a chance in the world to put it out."

There was a patronizing tone to Sands'

speech that stirred Rod's ire. He had been tired, dejected, willing to let things go, but now he suddenly wanted to put up a fight to save his big gusher, not to let this competitor feel sorry for him.

Rod drew slightly away. "Oh, I guess we'll get it stopped. Haven't made my plans yet, but we'll get to work soon."

As the other walked off, Rod's lips twisted into a bitter smile. He hadn't any plans at all. He didn't know how to start to put out such a fire. Why had he talked so big? Sands might have had some suggestion to offer.

But Sands' words and tone stirred Will Graham to action. He hastened across to Petrolton to send a wire to Bert Dowling to buy, borrow or steal a half dozen portable boilers, several hundred feet of piping, and as many sprays as possible.

As dark closed in, the crowd thinned out, all but a few adventurous spirits returning to their homes. But to those interested in the burning well because of the magnificence of its display, the night was the time to view it. From the huge column of flame that rose straight up from the ground flowed off blazing streams that threatened to fill the whole river valley with a sea of fire. Over and above all hung a vast black cloud of smoke with rosy

edges where it reflected the color of the flames, and every once in a while a flash of yellow, like lightning, cut across this cloud.

Two days passed before the fire-fighting apparatus from Blacksburg arrived, and another day before it could be set up in working order. All the while the oil from the well burned furiously, attracting great crowds of people from all over the county, drawn hither to see the marvelous sight. And for a distance of more than fifteen miles downstream the river was a torrent of fire, scorching trees, shrubs and all vegetation along its banks, turning the summer green into dreary desolation.

Installing the steam method equipment kept Graham, Rod, Little Joe, George Oliver, and a dozen or so volunteer helpers on the jump. The six small portable boilers were set up in a circle about the well, and a perfect network of pipes laid down, each pipe terminating in a gooseneck, with the discharge end flattened to throw out a fan-shaped spray of steam. These lines were screwed together a safe distance from the fire and pushed toward their positions. Then Rod and Graham, under cover of asbestos shields, undertook to finish the job. There was no easy going in this part. The flames beat upon the

shields. The heat was intense. Hands and face were soon blistered. Even the ground was so hot that it scorched the feet through leather-soled shoes. A few minutes with the wrench was the most they could make, then they had to scurry back to the safety zone.

"Turn water on 'em," suggested Oliver. "That ought to help a little."

"Sure, that's the idea! Let's try it."

Cooled by a steady stream from the rubber hose, Rod and Graham were able to go on with their work.

It was almost night before everything was in readiness, but in spite of the oncoming dark all were eager to try out the new apparatus immediately.

So the boilers were fired up and, when high pressure had been reached, steam was turned on from all simultaneously. The pipes clanked and groaned under the force that rushed through them. Then, with a shrill hissing, the steam sprayed forth from the innumerable outlets in a cloud of misty white that rose up over the blaze, then began settling down upon it, chilling, strangling, smothering it.

"More steam!" yelled Rod. "Keep it up! Looks like it's going to work!"

With boilers behind them roaring, the pipes continued to belch forth their spray. It was a

fight to the finish between the wet, white cloud and the demon fire.

For the space of ten or twelve minutes, the struggle went on. Then the blaze began to wilt. Closer, heavier, the clammy blanket pressed down, shut out the breath of air. The fire slowly gave way before it, died out.

A whoop went up from the watchers. "Fire's out! Oil well's saved!" There was rejoicing on every side.

The swift coming of the dark, though, after days and nights of red glare, was fairly bewildering. Men stumbled about, uncertain of their steps, too fearful of another conflagration to attempt to make any sort of light. The noise of the boilers subsided, the hissing steam ceased to issue from the pipes.

As Rod was standing on the hillside by one of the boilers, he heard someone walking toward him through the dark.

"Who's that?"

George's voice answered. "Great work those little boilers did! Put that big blaze out as easy as—"

He broke off in a sudden cry. Where an instant before had been peaceful darkness was now a lurid tower of flame. The oil well was afire again.

CHAPTER XV

TROUBLE AHEAD

Amid the hubbub that arose as the flames regained their former ferocity, everyone was blaming everyone else. Carelessness—allowing a spark from a boiler-fire—a lantern—a cigarette—

The truth was that the blaze had started itself—as Rod was to find out later, and to his great distress. It would have been easier to have corrected human mishaps than to have attempted to control the stupendous power of heat. The well having burned for days, the ground around it was naturally exceedingly hot. So hot, in fact, that as soon as the cloud of steam lifted, the heat from the earth reignited the oil, and the gusher was again turned into a ravaging, fiery monster.

"Steam up again!" bellowed Graham, rushing around like a madman. "Put it out once! We can do it again—"

But Rod intervened—everyone was tired,

worn out, heartsick over the failure that they had counted to be a success. Wait until morning, then they could work better.

"Guess you're right," the other nodded, stretching wearily. "Feeling sort of done up myself, but I forgot it when I saw the fire busting out so big."

So a guard was set by the well, Little Joe and Tom Merriman to keep the first watch, Alf and Bob Hyler the second. Rod and Will Graham had expected to take turns during the night, but the others insisted that they get a good sleep, for they would need all their strength and wit on the morrow.

Next morning all hands were on the job, boilers were fired up and steam was once more turned loose upon the blazing petroleum. As previously, the fire was soon extinguished, but when the blanket of damp lifted, the flames leaped up again.

"Lord hae mercy on us," groaned Granny who had come out to witness. "Do ye reckon ye hae drapit ye well clean down to the devil's furnace?"

For six harrowing days the men stubbornly fought the inferno with steam. Repeatedly the fire was put out; persistently it sprang up again. The only thing that could be called an improvement in the situation was that no

longer was the blazing oil running down to the river to add to the conflagration there. On the fourth day Rod had had a high wall of earth thrown up around the well so that the overflow was now imprisoned in a burning lake and the scope of its destruction lessened.

Days of strained muscles, nights of worried sleep, blistered faces and bodies, smoke-grimed, mud-encrusted, Roderick McDougal and Graham looked like wraiths of their former robust selves. George Oliver too was haggard, with dark circles under his eyes, for he had stayed on to work as hard as anybody. Indeed, everyone on the farm was showing the effects of mental and physical strain.

Whatever doubts and fears Rod had at the bottom of his heart he kept to himself and gamely insisted that some day in some way he'd "get the best of that fire." He refused to give up. But his partner was frankly pessimistic. When the well stopped burning, there'd be no oil left in it, he feared. Better abandon it now and save the expense and labor of the impossible task of trying to extinguish the blaze.

One morning Graham slept later than usual and came out to find Rod and his helpers digging a pit on the hillside above the well.

"What's up now?" he questioned.

Rod's face was weary but there was a conquering light in his eyes. "Got a new scheme on," he exulted. "Mud. Mud—that'll do the work, I bet you."

Graham snorted scornfully. There wasn't any use to try any longer, but he'd stand by his partner one day more. Grabbing a shovel, he set to work.

During the protracted efforts to put out the fire by steam, Rod had discovered his strongest foe was the heated earth that the steam could not cool. From this knowledge he had evolved the idea of a rather fluid mixture of mud, which would not only cut off the oxygen from the fire, but would dampen the ground if poured on in sufficient quantities. Fortunately the gusher was on a hillside, the soil of which was a heavy clay. Thus Rod had his material right at hand, and also an incline down which he could run his mixture, letting the force of gravity do the hardest work.

Some two hundred feet from the well and about thirty feet above it, he dug his pit, five feet across and three deep, with a strip of plank acting as a flood-gate to a shallow ditch that led down as close to the burning lake as the heat would permit them to dig.

In this pit, water and clay were stirred together until they mingled in a sloppy, messy paste. Then the signal was given, the plank was lifted, and the fluid mud was sent rushing down into the crater.

Such a hissing and sputtering as greeted its arrival! But the blaze gave way before it as it forced itself down to the center of the lake, spread over the mouth of the well and cut off the flow of oil.

In quick succession the pit was filled and emptied a half dozen times or more. By the time the last discharge had poured in, the fire was extinguished and the dyke around the well was filled with a steaming, jelly-like mass of mud that was already drying in spots and cracking open.

At last the fire at the well was out, and the fire on the river had died away from lack of fuel, but Rod was so tired that he could hardly rejoice. All he wanted now was to forget about oil wells, to go to bed and rest, to be permitted to sleep a full round of the clock.

Several days went by before anyone tampered with the gusher, for everyone wanted to be sure that the ground was safely cool before it and petroleum again came in contact. But when all thought of danger was

over, new tanks were built, the well was cleaned out, and the routine of the oil business began once more. Prices were good, boats were ready to take shipments, and the teamsters were kept busy hauling filled barrels from the wells to the river.

In spite of the fact that the future seemed rosy with the promise of abundant prosperity, Will Graham grew more and more restless as the summer advanced. The wander-fever was upon him and he couldn't shake it off. He liked the McDougals and had enjoyed the several years' association with them, but he longed now for new scenes and new faces. Finally a climax was reached—in desperation he pleaded with his partners to buy him out, to free him of such ties as bound him to Rainbow River valley. Perhaps he wouldn't give up oil entirely, he said; there was too great a fascination to the greasy game. But the oil boom was spreading all over the United States and fields were being opened up in Oklahoma, Texas, California. He might go to some of those places, might catch the thrill of new hopes and fears in another rush for the earth's black gold.

So the McDougals bought him out—fifty thousand dollars in cash and notes—and Will Graham left the valley. It was a most in-

opportune time for such a transaction, for while prices were high, money was scarce. But the McDougal family comforted itself with the knowledge that now it was the sole owner of the Indian Oil Company and the big gusher well.

At least it comforted itself thus for a while. But as things soon turned out, even this satisfaction was to be contested.

Mr. Lewis Hume, who had introduced himself as Colonel Barbour's lawyer, and who for some months had been in and out of Petrolton, now paid a formal and very disturbing visit to Hard-acres Farm.

Clad in solemn black coat and well dusted top hat, he knocked at the door. Jan was the one to let him in.

"Is Mr. McDougal at home?" he asked with clipped, precise enunciation. "I wish to speak with him on important business."

"Yes, sir; I'll tell him you're here. Won't you sit down?" Jan ushered him into the parlor, then fled in great excitement to find her father.

Mr. McDougal frowned. "Now I wonder what he can want of me? No good thing, I suspect. Never did like his looks." But he went on into the house to receive the visitor.

Wasting few words on preliminaries, Lewis

Hume went straight to the point. Ever since his first visit to the valley, he said, to take charge of Colonel Barbour's property, he had been suspicious that land matters were not quite what they ought to be, particularly in regard to that boundary line between Hardacres Farm and the Colonel's tract. So he had recently had a new survey made, and according to that, the McDougals had been overstepping their rights. Their property ended south of the lone oak tree on the edge of the ravine instead of beyond the hill. The point which jutted out, some five or six acres in extent, and which they had always claimed, by rights belonged to Colonel Barbour.

"Great guns, man," Mr. McDougal's face blanched, "you don't know what you're talking about. That'd take our big gusher away from us!"

"Yes, that's what it would do," the other agreed suavely.

Joel McDougal was thunderstruck and angry, yet somewhat amused too. "You're barking up the wrong tree," he protested. "That land's belonged to our family ever since the Revolutionary War."

There was an acid tinge to Hume's smile as he answered that sometimes mistakes were made in olden days, and were allowed to run

on through carelessness. As long as the land had not been valuable, nobody had thought much about claiming it. But it was valuable now, and the rightful owner wanted possession.

"My mother knows the history of the farm better than I. Perhaps she can help correct your errors," Mr. McDougal said stiffly. "If you'll excuse me a minute, I'll fetch her," and he got up and left the room.

In the period immediately following the Revolution, all the region along Rainbow River had been purchased from the Seneca and Onondaga Indians to be used in fulfilling the State's promise to make certain donations of land to its officers and soldiers as a reward for their military service. This Donation Land, as it was called, was laid out in ten districts, and in 1785 the Surveyor-General appointed ten deputies to survey it and lay it off into lots of four classes: five hundred acre tracts for the higher officers, on down to the two hundred acre tracts for the corporals, drummers, fifers and privates. These deputy surveyors were required to make oath not to select the best lands, or to favor any of these classes to the prejudice of the others, and they were to define the boundaries plainly by marking trees along the line. Particularly

they were to be careful in marking angles and corners, and on the northwest corner of each lot the number of the lot was to be marked. When a certain number of lots had been surveyed, a draft or map was to be made of them, giving the number and size of each lot, and this map was to be deposited in the office of the Master of Rolls, as a public record. When the whole district had been surveyed, the land was to be distributed by lottery, the tickets to be drawn from a wheel, well turned round, and kept in safe hands.

Corporal McDougal had drawn from this wheel, and had received his land directly from the government. John Barbour, Colonel Barbour's grandfather, had not been eligible for a donation, but as an investment had bought a two hundred acre tract from a private soldier who had received it as Donation Land, but who was afraid to settle on it because of Indian hostilities in that part of the state. All these years the Barbour family had lived in the East, piling up considerable wealth, and paying no attention to this land. But when oil had been found on it, they had sent their lawyer to take possession. He had driven off the squatter family, the Coontses, and had installed an expert engineer to take charge of drilling the wells. Then he had discovered

what he thought was a flaw in the boundary lines, and he was now ready to move heaven and earth to get what he called justice for his client.

After some minutes Mr. McDougal returned to the parlor, Granny and Rod with him.

Mr. Hume stood up, offering to shake hands, but the old lady merely nodded coolly as she took her chair. "My son tells me ye are wanting to take ower big gusher away frae us," she said.

"I'd hardly put it like that," answered the man slowly. "It's only natural that Colonel Barbour should now want his property that you have been using all this time."

"It's ower property, no' his," protested Granny, her eyes snapping. "Ye thocht because the gusher lay off on a point to itself ye could claim it. But I ken full weel about the boundaries o' this farm,—mony a time my husband has explained the why o' its shape. Indians on the warpath are no' verra nice to buckle up against, and twa times or mair auld Peter Broom, what run these lines, had to duck to Fort Black to save his scalp. Aye, he had his troubles, and I sair doubt he was no ower-ethical either,—mayhap worked in a hurry to get that fee for ilka lot. And what wi' chain-carriers sometimes dropping the

pins they kept count by, or maybe failing to knot the outs when the whole number of pins were struck, the lots turned out to be mair lopsided than rectangular. But Tammas said that dinna matter as the survey was government run and would stand."

Hume leaned forward, a disagreeable light in his pale eyes. "Perhaps so, madam. But how do you know the lots were really irregular in shape? When the first Mr. McDougal took up his land, perhaps he was just a little careless in running his fences."

Granny emitted a snort of indignation. "Corporal McDougal careless? sic foolishness! He was that wary, he himself drew a map o' his land, gaed by the marked trees, and a neater piece of work there never was. In my young days I saw it, and I remember how crooked the lines ran."

The lawyer reached in his pocket, drew out a paper, unfolded it and displayed to his astonished audience a large map of Rainbow River valley, with every lot upon it a neat rectangle. "This is a copy of the draft your old surveyor, Peter Broom, handed in to the Master of the Rolls." He held the paper closer and pointed to a small plot. "There you see it, Lot No. 143—McDougal, every line as straight as an arrow."

"Och no!" the old woman cried out in surprise. "I wouldna thocht he'd do sic as that, draw up a map different frae what he ran the lines, the false creeter!"

With a crackling of paper, the man put the map back in his pocket. "Don't take it so hard, madam," he advised sarcastically. "Colonel Barbour is an unusually kind-hearted man, and he doesn't wish that anyone should suffer by his gain. In squaring off the plots, a good slice will be cut off his southeast corner. That will fall to you as fair exchange."

"That rocky hill?" Rod burst out heatedly. "That's not worth ten cents an acre!"

Granny raised up from her chair, fire in her eyes. Her old body was trembling, but her voice was like the crack of a whip. "You tell your Colonel Barbour he can keep his land, and we'll keep owers. Good day."

Impressive to the last, Hume took up his hat, bowed to each in the room. At the door he paused. "So you drive us to take it to court. I'm afraid you'll find that you lose more than you gain by that." Then he was gone.

CHAPTER XVI

THE LINEN MAP

Lawyer Hume's visit was like a bomb exploded in the McDougal family. Everyone was jarred out of their accustomed placidity. Granny was particularly angry, and though every night and morning she besought the "Guid Lord na to let the canny stranger" triumph over her children, her keen old brain was busy planning ways and means to help them herself.

One morning she called her eldest grandson and told him that she wanted him to go with her to look over the disputed boundary. So with this strong young staff to lean on, Granny went out to view the property.

Their path led by the gusher, a scene of tremendous activity,—oil flowing through pipes to the tanks, men busy filling barrels, loading them on wagons and hauling them down to the waiting boats. For a long minute the old lady stopped to watch the work, interested in everything that had to do with

this splendid well that perhaps would soon be lost to them. Then she and Rod passed on up the hill, once forest clad but now denuded of all but a few scattered clumps of trees. Beyond Rainbow Spring lay the old rail fence that Nat Coonts had moved, and beyond that the strip of meadow land on which he had wanted to graze his cow.

As Granny's eyes fell upon the fence, she snorted indignantly. "I telled Tammas, and I telled Joel, too, that boundary fences ought no' to be moved, but sma' thocht they gie my words, and now look whaur it hae got us!"

The woman's errand, it seemed, had to do with the grove of oak, pine and hickory that bordered the far edge of this strip of meadow. Getting Rod to help her over the fence, she went from tree to tree, examining the boles carefully, her sharp eyes taking in every crack and crevice that rutted the bark.

"What you hunting for, Granny?" Rod asked, following her about.

She stared at him in surprise. "Dinna I tell ye? I'm peeking about for the marker tree."

"The marker tree?"

"Aye, when Peter Broom runned the line, the law telled him to mark the northwest corner o' ilka lot wi' its number, and to do this by cutting on a tree a broad, flat surface, and

then sinking in the numbers wi' sic a tool as the millers use in marking barrels. Our number was 143, as that man showed ye on his map. If I had na been so giddy a young wife, and thochtless o' the future, I could hae had Tammas show me the tree. But now I dinna ken which it is. I'm michty feared I've waited ower long and the tree has grown ower and hid the numbers."

Rod joined in the search, but though they spent the greater part of the morning in the grove, their work was fruitless.

"If we had the auld linen map, all would be weel," the woman insisted. "It would show which was the marker tree. But I hae no idea whaur that map is now. I can't even remember the name o' the surveyor who took it away. Wilson—Willing—some sic name as that."

With a sigh, leaning heavily on her grandson's arm, the old woman turned back to the house.

Without the map that their ancestor had made, the McDougals faced the prospect of losing their best paying oil well. And they knew they could expect no help from the State records, for the false draft that Peter Broom had turned in was in direct opposition to their claims.

The strain and fear under which they were all living at last began to tell on Granny. She grew pale and haggard with worrying over the lost map and with trying to recall the old surveyor's name. Almost distraught, she would wander around the house, muttering, "Wilson—Williams—Warren—I ken it begins wi' W,—Washington—White—"

Ever since their success with developing the lubricating oil, Roderick McDougal had kept in close touch with George Oliver, for now the young chemist was devoting practically his whole time to experimenting with the by-products of petroleum. The two of them realized that only by a ceaseless struggle to create new uses for the oil would the demand be kept anywhere near the possibilities of production. In the intimacy of the friendship that had ripened through this close association, George had confided his admiration of Flora. So, to further a match of which he heartily approved, Rod invited George to spend the Fourth of July at Hard-acres.

In honor of Independence Day work at the oil wells was suspended and everybody took a holiday. There was a rather noisy celebration planned for Petrolton and its thousands of rough workmen, but the McDougals preferred to celebrate as they always had, with

a quiet picnic on the pine-grown hills behind the house.

Though everyone in the family felt the oppression of worry, still the young people's appetites hadn't fallen off. For several days in advance of the picnic there was a bustle of preparation in the farmhouse kitchen, and a tempting aroma of spices hovered within its smoke-darkened walls. Baked ham, stuffed chicken, risen bread, whole-peach pickles, lemon pie, apple pie, chocolate layer cake,—Rod and Little Joe and George Oliver fairly staggered under the weight of the baskets that they took out into the woods.

The day was fine and clear, the shade within the grove restful, and when the lunch was spread out upon the old tablecloth especially reserved for picnics, it looked so good that even the elders grew hungry.

"Give me another piece of that pie, Jan." Mr. McDougal unceremoniously licked his sticky fingers. "If I do say it, my wife can make the best pie in seven states."

Mrs. McDougal looked pleased and immediately began to press pie upon Granny, Uncle Angus, anyone who would have some.

"Can't eat another bite, mom," groaned Rod, falling back in mock prostration.

So after the cloth was cleared and the left-

overs packed in the basket, the group continued to lounge where they were, comfortably well filled and drowsy. Little Joe lay flat on his back, staring up at the sky through a rift in the trees; Mrs. McDougal produced a religious book and began reading; Granny drew thread and tatting shuttle from her pocket; George began idly to cut at a strip of bark with his knife as he leaned close to Flora in low-voiced conversation. Only Jan was restless, hopping around as active and inquisitive as a sparrow.

"What you making?" she peered over George's shoulder.

He laughed. "Nothing much,—just scratching my initials on this—"

"G. W. O.," the girl read. "What does the W. stand for? Oh, I can guess—Washington, —George Washington."

"You're wrong there, young lady," George flipped at her hand with the strip of bark. "My name's not Washington, it's Whatley."

"Whatley!" With a shrill little cry Granny jumped up from the rock upon which she had been sitting. "That's the name o' the surveyor who borrowed ower map. Whatley—George Whatley, I remember it now!"

"That was my grandfather's name," said George. "He was a surveyor."

"Great heavens, boy!" Mr. McDougal fumed. "You knew this all the time, and you didn't tell us!"

"I didn't know you wanted to know it," George defended. "Never occurred to me to connect grandfather with your lost map."

A wave of excitement had swept over the quiet group. Muscles had tensed, drowsy eyes had flown open. Now questions poured forth. "Have you seen the map? Do you know where it is? Is it really lost?"

George shook his head to all the questions. He was sorry, but he knew nothing of it, had never heard his mother speak of such a map.

"It was Mr. Whatley—Mr. George Whatley —who came to do some surveying for auld Mr. Hyler." Granny was staring at the young fellow as if she would hypnotize him into telling what she wanted to know. "Tammas took sic a liking to him, loaned him ower map to study. But Mr. Whatley took sick and died off in less than a week, and his daughter packed up and gaed hame to her ain folk. Tammas tried and tried to get in touch wi' her, for he thocht she micht hae the map. But she had married and moved awa', and na anybody could tell us—"

"She moved to Kentucky," George broke in. He had caught the excitement too. "I re-

member mother saying she married right after grandfather's death."

"But what did she do with the map?" Flora chimed in, a proud, happy look on her face. Oh, it would be wonderful if this sweetheart of hers would be the one to save the family fortune by unearthing the lost map and thereby establishing the rightfulness of their claim to the big gusher.

"She may have it put away with some of grandfather's things, and doesn't know she has it, or perhaps never realized how valuable it was."

"Write to her, ask her about it," insisted Rod. "This means a lot to us, you know."

"I'll write to her tonight," George promised. "She'll feel terribly bad about her carelessness having caused all this trouble, and if she can find that map, she'll do it."

CHAPTER XVII

"GIVE IT A SHOT"

With the discovery that George Oliver was the old surveyor's grandson, and with the knowledge that he was working to recover the missing map, hope rose again in the McDougals' breasts. There was a new cheerfulness in the air, Rod forever had a whistle on his lips, the others lost their distressed looks, and Flora went around fairly beaming with proud happiness. All were confident that their hopes would be fulfilled, that their possession of the land would be vindicated.

George had promised that as soon as the letter came from his mother, he would either bring it from Blacksburg or send it.

Days passed by, however, and lengthened into one week, two weeks. No letter came. Granny began to get impatient.

Rod undertook to soothe her. "But Granny, we can't expect to hear all in a minute. It takes a long time for a letter to go to Ken-

tucky and back. Besides, Mrs. Oliver has to hunt for the map."

"Ay weel," the old lady sighed, "ye may be raucht, but I sair doubt I'm the only ane the time is lang for."

At last the letter came, George sending it up by post, not relishing being the bearer of ill-tidings. For ill-tidings were on its pages despite Mrs. Oliver having written so kindly and sympathetically. She had never heard of such a map, not that she could remember, she wrote. She had looked through her father's papers and books on the chance of uncovering it, but had found nothing. Time and again she repeated her distress that through her family so valuable a thing had been lost.

Jan was in tears, Flora was utterly crushed, and none of the others looked any too cheerful. This was the end to all their hopes along this line. How could they ever be able to prove to Lawyer Hume and his rich client that their land was their own?

"Na use greeting ower spilt milk," Granny offered bravely, but there was a certain mistiness about her own eyes.

Almost upon the heels of Mrs. Oliver's letter came a visit from Mr. Hume. He felt, he said, that some action must be taken, that

they had dawdled long enough. The law was on his side, he insisted. The map on file from the Master of the Rolls proved the land to be Colonel Barbour's. The strong point of the McDougal defense, the marker tree for the northwest corner that would determine the correctness of their claim, could not be found. The whole story of it might have been nothing but fiction, for all he knew.

Mr. McDougal was too despairing to even take umbrage at the lawyer's insinuations. Almost in a lethargy, he agreed to be present when Colonel Barbour's surveyors came to run a new line.

"It's my man Tammas we hae to blame for all this," remarked Granny sorrowfully. "He was a guid man, but ower careless in sic matters. It was him as let Nat Coonts move the fence and cut down trees for firewood. Na doubt the marked tree has been burnt up lang ago."

"Oh, don't say that! We'll locate that tree yet, map or no map," Rod tried to comfort her. And time and again he would slip away from his work at the oil wells to prowl in the grove, searching, searching for the ancient record cut in the living wood.

Driven on by the cloud of despair hanging over their family, Rod and Little Joe had

worked desperately at the oil business, collecting in tanks, shipping in barrels, trying to get all they could out of their flowing well before it was taken away from them. But just when they were putting forth their best efforts to lay by thousands of gallons of petroleum, running a race with time, as it were, nature undertook to play a scurvy trick on them. The flow from the splendid gusher that had been the marvel of the whole valley, of the nation even, began to fail. From fifteen hundred barrels a day it rapidly descended to five hundred—one hundred, then on down to fifty—twenty-five.

"Looks like it's going to turn into a pumper," Little Joe groaned.

Rod was heartbroken. His gigantic gusher becoming a common well that had to be operated by pumps! That was a twist of fate he hated to face.

A number of visitors, some from mere curiosity, some to proffer advice, came to look over the failing gusher. But Paul Sands, the trained engineer, was the only one who diagnosed the trouble correctly and prescribed a remedy.

"Give it a shot," he said. "Either it is clogged with paraffine, or relieved gas pressure has caused the flow to cease. What it

needs is a charge of nitroglycerin. That'll loosen things up for you."

Torpedoes (iron cylinders about six feet long and two or three inches across, filled with gunpowder, cotton and nitroglycerin) had been successfully used to increase the yield of wells in other oil districts, but up to now there had been no need of them in the Rainbow River field. The tales of the frightfulness of their power, however, had spread to every section of the country where oil was produced. Rod had heard many of these stories and so, it seemed, had many of the other men idling around the well, for immediately they began to vie with one another in relating blood-curdling yarns about nitroglycerin tragedies.

"They say that stuff literally tears a fellow into bits." Mr. Hyler's tone was full of horror. "Quick as lightning, and can't be dodged. I remember hearing about a young fellow over in Oklahoma who lowered a shell in a hole, but it didn't explode. Like a ninny, he drew it up to have a look at the priming. Just as he got it to the top, it went off with a bang. And he went off with it. They say there wasn't enough of him left to fill a cigar box."

"It's tricky, all right," agreed the gray-beared man to the right. "You know Will Todd—lives down beyond Blacksburg. He

makes torpedoes and sells 'em. Stuff so dangerous he dug out a cave in the hillside to store it in. One morning his magazine exploded and nearly tore up the town, shook down chimneys, broke glass windows, and about scared folks to death. When he went out to look at his magazine, there wasn't nothing there but a big hole."

"Have you heard the latest tale?" Paul Sands put in solemnly, but there was a twinkle in his eyes. "There's a hog over in Newville who dined on a package of nitroglycerin, and now all the citizens give him plenty of room. He has the whole street to himself when he wants to take a walk, and all the dogs are kept tied up for fear they might chase him into a post and cause an explosion that would wreck the town."

Everybody broke into a laugh but Mr. Hyler. "It ain't right, joking about such an awful thing," he remarked gloomily.

Roderick McDougal had hardly listened to the talk, his mind was so occupied with how he could start his well to flowing again. "Reckon I can get nitroglycerin in Blacksburg?" he asked Paul Sands.

"Sure,—from that fellow Todd we were talking about."

"Needn't ask me to go get it for you. I'm

not ready for Kingdom Come." Tom Merriman had been standing in the fore of the crowd, but now he drew back hastily. He was one of the McDougal oil men, but evidently he felt that hauling explosives was no part of his job.

"Oh, don't worry," Rod flung back with a laugh. "I'll go for it myself."

"Na, na, laddie; leave that deadly thing alone."

Rod looked around in surprise. He hadn't noticed that his grandmother and sisters had joined the group some minutes before and had listened anxiously to the tales of tragedy.

"Granny, you wouldn't have me afraid to go, would you?" he asked.

"Na, nat that." The old lady's face was pale. "But no well's worth risking your life for."

Later, Mrs. McDougal added her fears to Granny's, but Rod had made up his mind that the gusher be torpedoed, and he was determined that no one was to bring the explosive but himself.

In spite of his family's protests, Rod made the trip to Blacksburg and bought one hundred quarts of nitroglycerin. But he had promised not to be foolhardy, and he did try to take every precaution that would help him

bring his load in safely. With a number of worn-out blankets and quilts and a plentiful supply of hay, he made a soft padding around his cans, and he drove as slowly as if he were in a procession, carefully avoiding every rut and stone in the road, for sometimes the slightest jar would set off an explosion.

"Ho hum!" Rod yawned and stretched. He had expected to find transporting a wagon-load of explosives a mightily exciting matter, but this was turning out to be one of the dullest rides he had ever taken. It was nearly twilight now, and he had come only three-fourths of the distance. If he kept up this snail's pace, it would be well into the night before he could reach home.

Yawning again, hardly conscious of what he was doing, he reached for the whip to flick his horses and hasten their steps. But he remembered in time and dropped the lash back in the socket. Better not risk even a little trot, or it might be with him like it was with that fellow they had told him about down at Todd's magazine. The man had had two hundred quarts of nitroglycerin in a sleigh, his horse had run away, and people supposed the sleigh had struck a stump, for it exploded. All that had been left of the man, horse and sleigh had been a twisted steel runner.

Remembering this and other tragedies that had been impressed upon his mind, Rod again assumed wakeful care of his team. It was well for him that he did, too, for as he ascended the steeps of Landrum Hill, he found a need for all his wits.

Landrum Hill was known as one of the danger spots between Hard-acres and Blacksburg, for it was as rugged as a mountain and almost as high, and had been the scene of numerous accidents. The road, which barely clung to its edges, forced itself up by tortuous curves and hard grades, with a high bluff on one side and a rock-strewn ravine on the other.

Paying strict attention to his driving, Rod had covered more than half of the ascent without mishap when he heard a peculiar noise that seemed to be approaching over the top of the hill. Bonnie and Black Jack heard it too, and pricked up their ears nervously.

Pop-pop-pop-sputter-sputter-sputter, the noise grew louder. And then around the bend some hundred yards in front of the wagon came a strange-looking vehicle, a sort of buggy with curved dashboard and high wheels, but requiring no animal to pull it. It was an automobile, perhaps one of the first ever made, and certainly the first Rod Mc-

Dougal had ever seen. Not many months before he had read in a magazine about these carriages that propelled themselves, and he had seen pictures of them, but he hadn't thought to meet one face to face on Landrum Hill.

Neither had Bonnie and Black Jack expected this advent of their rival, and for an instant the sight and smell of it froze them where they stood. Then as it bore down upon them, a creature of spouting steam and fearsome sounds, they went wild, rearing, plunging, backing away in terror.

The wagon swayed, rocked from side to side. Rod's hair rose upright. The nitroglycerin! Another bump like that, and it might go off.

"Down, Bonnie!—Quiet, Blackie!" He had leaped from the seat and was at the horses' heads.

But it was useless to try to soothe them. They continued to prance and snort. In another instant, they and the wagon would be over the edge of the cliff.

In a frenzy,—as much to save himself as his horses and his freight,—Rod whipped out his knife, slashed at the traces, set the horses free. As he did so, the automobile slipped past him.

Evidently the driver of the car felt mean at causing so much trouble, for a little way down the road he stopped, got out and started back to help.

Now that the engine was silent, the horses lost some of their terror. They were still trembling and nervous, but they no longer tried to run.

"Good old Bonnie!" Rod patted the sleek brown nose. "No use to be scared now!"

A commotion behind caused him to glance around.

With a cry he sprang forward, but he was too slow.

The brake had slipped, and the wagon was rolling downhill backwards. And right in its path stood the stranger and his automobile.

Rod took a step backwards—shut his eyes. In a minute there'd be an explosion. He couldn't bear to see it.

CHAPTER XVIII

NITROGLYCERIN

Suddenly the rumbling of the wagon ceased. Rod dared look.

An unevenness in the road had blocked the wheels, checking the wagon. Wavering, it hung upon the ridge.

Almost before he knew what he was doing, Rod was running forward. He must catch the wagon,—hold it. If it struck the automobile, there'd be a terrible wreck. They'd all be killed.

Before he could lay hands on the vehicle, however, it had started off again, gathering momentum in its downward course.

"Get out the way!" Rod yelled to the stranger. "Nitrogly—" He stumbled over a stout branch that had evidently fallen off a load of firewood.

As he saw what it was, Rod McDougal grabbed it up, hope springing into his heart. Plenty of times when hauling wood, he had

used an axe handle thrust between the spokes of the front wheel to brake a load on a steep hill. He could do the same with this, if he could overtake the wagon.

Among all the boys of the neighborhood, Rod had been known for his fleetness of foot. It stood him in good stead now.

Straining to the utmost, he caught up with the dragging tongue, finally ran alongside of the wagon body, jabbed at the front wheel with the stick. At first he couldn't get it in—the crash was coming in spite of all he could do.

The second thrust went home. With all his strength he bore down upon the wood, then with a jerk that nearly wrenched his arms from the sockets, and that set the cans to dancing in their padded nest, the runaway came to a halt.

Anxious to be of assistance, the stranger, a young fellow about Rod's own age, now hastened up with a good-sized rock and braced a rear wheel.

"Got it stopped all right," he grinned as he came forward. "Made you run for it, though. Sorry I got you into such a mess."

Rod brushed a hand across his forehead. It was wet with cold perspiration. He felt dazed, weak. Now that danger was over, he

found himself trembling. Great heavens, what a close call that had been!

The other boy saw how pale he was. "Are you sick?" he asked.

"No-o-o," Rod shook his head. "Just scared. That's a load of nitroglycerin."

"Nitroglycerin!" The stranger gave a jump that took him to the edge of the road. "My land, man, why didn't you say so? And you chasing after it like it was nothing but sugar or flour!"

"Had to, or—you'd—have been—an angel—by now," Rod got out between bursts of laughter, the other's alarm had been so comical. Anyway, it made him feel better to laugh and eased the strain of his own recent alarm.

Convinced that nitroglycerin was harmless as long as it was kept quiet, the stranger readily assisted Rod to repair his harness and hitch up the now tractable team. Before they did that, however, he insisted on Rod looking over his machine. It was one he had built himself. For two or three years he had been experimenting with engines and self-propelled vehicles, but this was the first that would run anything like satisfactorily.

"Some fellows in the East and one out in the Middle West are working on this same idea," he said. "These little gas buggies are

going to change a lot of things around this old world. They're the transportation of the future."

The remainder of Rod McDougal's journey home was uneventful, for which he was devoutly thankful, having had enough excitement to last a while.

As he drove slowly through the gathering dusk, his thoughts were full of the automobile. He hoped it would catch the public fancy and be a great success. For one thing, it offered a speedy way to get from place to place; for another, it burned oil. Rod McDougal was always interested in anything that promised a new market for petroleum.

It was nearly midnight when he arrived at home, but he found Little Joe waiting up for him. After stabling the horses, Rod tumbled wearily into bed, leaving his brother to keep guard over the wagon and its temperamental load, lest anyone unknowingly jar it and themselves into eternity.

Next morning piping and other equipment was removed and Rod prepared to torpedo. Granny, Mrs. McDougal and the girls were in an agony of apprehension and would have dogged his footsteps with their fears, but Rod had begged, almost commanded them to stay at the house, so they huddled together on the

front porch where they could get a glimpse of what was going on, and still heed his warning.

Mr. Todd had advised a heavy charge, a hundred quarts, so that a wide area of the oil-bearing rock would be shattered.

Kneeling beside the well, Rod cautiously let down the cans upon a stout cord, the first resting upon the bottom of the hole, the others stacking up one upon another until the whole number were in place.

"Handle 'em easy, buddy," cautioned Paul Sands. "None of us are hankering for a sky-ride."

Several oil workers whose curiosity had got the better of their discretion had come from Petrolton to view the torpedoing, and they had been free enough with advice as to how it should be done. But when Rod began to adjust the percussion cap to the top of the last can, they quieted down and retired to a distance.

All was in readiness. Rod sent down the drop-weight, then darted back.

Monotonous quiet reigned.

"Seems like nothing's going to happen," said Tom Merriman.

"Priming must have got wet," put in Little Joe. "I'll draw it up and we can put in another," and he started forward.

But before he had taken ten steps, an explosion equal in force to a ton of gunpowder rocked the ground. A shower of water, oil, mud and broken rocks rushed up through the well.

Nearer than the others, Little Joe was thrown to the earth, and a rain of jagged stones fell upon him, cutting his face and hands.

"Here, give him a hand! Pull him back!" Several leaped forward and dragged him out of reach of the flying missiles.

For a full minute after the first rush of water had subsided, the well remained quiet. Then the burnt glycerin, mud and sand began to pour forth in a black stream. Gradually this paled to yellowish-brown,—to yellow. Then, with a frightful roar, the gas broke through. And in its trail followed a mighty column of petroleum. High, high into the air leaped the golden flood, as strong, as abundant as when the gusher had first come in.

"Ain't it a beaut? Gee, I wish it was mine!" Excited human voices were lost amid the thunder of the fountain.

The torpedoing had been a success. The well was flowing again. But there was hardly time for Rod to receive congratulations. The

oil was running off in streams as large as a man's body. It had to be penned or the waste would be terrific.

There was an ever-present danger of fire, too. While friends were frantically shoveling up earth to dam the flood, Rod sent a couple of boys over the neighborhood to have all fires extinguished, so there would be no repetition of the horrors of the river of flame.

Rod McDougal's chief concern, though, was to harness his well again. This was a work of hours and of men toiling against the pressure of a solid stream of oil. But finally the cap was fitted, the well was closed, and casing-connections and tubing-lines once more directed petroleum into the tanks.

With the gusher flowing freely, there was bustle and rush on Hard-acres. Oil pouring out at the rate of thousands of gallons a day, barrels filled and heads knocked on with expert rapidity, wagons standing in line, horses stamping, men bawling at each other.

Bert Dowling had wired that a big order had come to the refinery, and that he needed raw petroleum to fill it. So Rod speeded up work to make a prompt delivery, the period when the well hadn't flowed having cut down considerably on his output. But right at this crucial time, when he needed the wheels of

his business to run most smoothly, the teamsters abruptly threw a monkey-wrench into the spokes.

Rod was standing by the shed, counting off barrels as they were filled and stacked ready for the wagons. Yesterday nearly five hundred had been hauled off, some to the boats, some to the railroad. Today there'd be another big shipment. He wished the wagons would come on. It was getting late. If they didn't get things started soon, the count wouldn't reach what it ought.

He glanced anxiously around. Ah yes, there was Big John coming now! Time too, with barrels of oil piling up everywhere!

"Get 'em moving!" Rod shouted his orders. "Want to get this lot over to Petrolton before the twelve-fifteen train."

Big John came to a standstill, a stubborn light in his pale eyes. "Get 'em over there for seventy-five cents per," he announced.

"You're crazy as a bat!" Rod grinned, making believe it was a joke, though a sinking feeling in the pit of his stomach told him it wasn't. "That's a quarter more a barrel than you asked yesterday."

"Not so crazy, mebbe." Big John leaned placidly against his wagon wheel. "No hauling 'less I get more money."

Rod's temper flared up. "You go to blazes!" he snapped. "Larry Brown'll be glad to take it for me."

"Not at fifty per." There was triumph in the other's face. "Him and me talked things over, and from now on none of our wagons haul for less 'n seventy-five."

"All right, I'll pay. Go ahead and move it. And do it darned quick," Rod shouted angrily. He realized that he was beaten. This was nothing but a holdup, but what was he to do? If he missed this shipment, he'd also miss some much needed cash. He was at the teamsters' mercy and they knew it. Always they were like this, never failing to take advantage of the necessity of the shipper. If there were only some way he could run his business without them, he'd cheerfully ship the whole caboodle down the river tomorrow.

It was not anything new, this wish of Rod's that he could find some cheaper and better method of transportation. Many a time he had pondered this problem, but had never found any solution for it.

It is an old saying that one never knows what the day will bring forth. It is also said that wisdom cometh out of the mouths of babes and sucklings. To Roderick McDougal's great good fortune, this summer day that be-

gan so inauspiciously ended by proving the truth of both of these adages.

Angus Bute could hardly be called a babe, having achieved a hoary three score years, but because of his bodily afflictions his mind had become like that of a little child. Occasionally he did some light work around the farm or the oil wells, but mostly he spent his time puttering around with useless contrivances of his own making, and, when he had no one else to talk to, telling himself tales of his adventures in foreign lands when he had followed the sea in the long ago.

Tired, disgusted with the oil business, and with wagoners in particular, Rod was starting to the house in answer to the dinner bell when his uncle came out of the woods beyond the gusher and fell into step beside him. The old man was carrying a long slender cane which he handled with extreme care, shielding its ends from the bushes and trees along the path. "Found it this time!" He looked up at Rod and chuckled. "Ain't bamboo, but I reckon it'll do."

"What you making now?" Rod was fond of his uncle and always humored his fancies.

"A pipe line," proudly. "Thought as how it might be a good idea to pipe water from the pump to the duck pond. Weather's been so

dry, pond's about dried up. Kind of felt sorry for Jan's ducklings, the li'l fellows got no place to swim, so I thought I'd try to help 'em out."

"That'd be fine," Rod applauded. "If you look around the old well, you can get all the iron pipe you want."

"I'll fix my own pipes," the old man insisted. "When I was down in the southern part of Asia, I saw them brown men there make pipe lines out of bamboo. Bless my soul, they'd carry water the longest sort of way, half a mile sometimes, in those frail li'l pipes. I haven't any bamboo, but I figger this cane'll do jes' as well."

Rod stared down at the wizened old man pattering alongside him. From Uncle Angus' rambling chat had come the suggestion for the lamp chimney that had brought about the first demand for petroleum in quantity. Perhaps it wasn't such a fool thing, this idea that had come from his talk now. Water carried a long distance in bamboo pipes. Why not oil carried a long distance in iron pipes? Carried all the way from the wells to the boats, or to the railway tank cars? And the teamsters put out of business.

Roderick broke into a laugh. If he could make this scheme work—and he didn't see

why he couldn't, for he had done other things that seemed more impossible—if he could make this scheme work, the joke wouldn't be on him like it had been this morning. It would be on Big John, on Larry Brown, on all the rest of that greedy, hard-boiled crew that took advantage of a fellow when they thought he was down.

Confiding his new idea to his brother, Rod left him in charge at the wells and took the afternoon off to reconnoiter. It was his plan to move the shed where the barreling was done down to the river edge, convenient to the boats, and then pipe the oil down to it. This would eliminate the transportation by wagon from well to boat. Funny he hadn't thought of so simple a thing before! For months he had been piping oil into the storage tanks. True, the tanks were close by, and only one length of pipe was required, but he saw no reason why a number of pipes couldn't be fitted together to carry the oil a longer distance.

Rod planned to run his experimental pipe line from the gusher, for that was the biggest producer on the farm. And even if they lost in the coming lawsuit and the gusher was taken away from them, his work wouldn't be entirely wasted. The pipes could be removed

to one of the pumping wells, and maybe, some day, they'd strike another gusher.

To cover the distance to the river, which was perhaps a little more than an eighth of a mile, Rod used two-inch cast-iron pipe which he connected by lead sockets, the only kind he could find in either of Petrolton's hardware stores.

The business of installing it was simple. With Little Joe to help him, he laid it in a shallow ditch, and trusted to the force of gravity to carry the oil through.

"You're a bigger fool than I thought you were, if you're aiming to get your oil down to the boats that way," jibed Big John as he watched preparations, but there was a hint of uneasiness beneath his scorn. If this thing did work, he'd be out of a job.

Others laughed at Rod's idea, too. "Never satisfied, always got to be trying something newfangled," said old Mr. Hyler. "You're going to waste a sight of grease, or I miss my guess."

"And even if it doesn't leak, it'll clog with paraffine," predicted Paul Sands with an air of authority.

CHAPTER XIX

PIPE LINES AND PARAFFINE

"Leaking worse than a fifty-cent umbrella," Rod groaned.

The try-out of the pipe line wasn't any too encouraging. Hardly three-fourths of the oil that entered the pipes at the well reached the tank on the river bank, for the cheap lead joints were leaking like sieves. And yet the mere fact that some of the oil went through, and that it went through quickly, with no exertion on the part of man, was something to be considered.

Little Joe's face was long as he gazed upon the wasteful seepage. "What you going to do about it?" he asked.

"Send a wire to dad to bring me some screw sockets," Rod answered promptly. "He's coming home some time this week."

The news that the pipe line leaked was hailed with shouts of laughter by the teamsters.

"In a couple o' days he'll be begging us to do his hauling," boasted Big John.

"Hadn't we better raise the price to a dollar?" slyly suggested Larry Brown. "Jist to pay us for the time he's made us lose."

But more than a couple of days passed by and Rod didn't come seeking the teamsters' help. He made the best of the pipe line as it was, and when he had installed the screw sockets that Mr. McDougal brought from Blacksburg, it looked as if he'd never again have need of men to haul for him.

The rebuilt pipe line was so successful that other oil producers began to take note of it. From their comments, Rod was inspired. Why not a line of pipes all the way to the refinery in Blacksburg?

Acting on this idea, Rod immediately made the round of the various oil men, explaining his scheme and asking if they would ship by the line if he could put it through. Without exception all agreed that they would. But while some accepted the proposition seriously, others agreed laughingly, not believing that such a fantastic dream could ever become a reality.

Rod realized the difficulties of what he was undertaking. For one thing there was a variety of terrain, hills, valleys, flat land, between

the oil fields and Blacksburg. He could not expect the force of gravity to do the work for him on this line as it did on his short line from the well to the river. But some way would be found. He needed time to think about it.

* * * * * *

Several weeks had passed by and Lawyer Hume had not been near Hard-acres. Now, however, he made one of his abrupt and disagreeable visits. He didn't come to the house this time, but as he found Rod at the oil wells he stopped to deliver his message there.

Intently he surveyed the wealth flowing from the gusher. "Paul Sands tells me this well was failing, but that you blasted and got it running again," he remarked. "Some day Colonel Barbour'll thank you for doing that for him."

"We did it for ourselves," Rod snapped. "This is our land."

"Don't be too sure about that," the other laughed dryly. "Next month Colonel Barbour is coming to Petrolton to attend to his affairs in person. You'll find then that this land is his, and that you'll have to pay for all the oil you've taken out of it."

Roderick McDougal's anger flared. "We'll pay nothing!" he shouted. "It's our land—our oil—"

Lewis Hume backed discreetly away. "I see you haven't time to talk business," he muttered, and hurriedly took his departure.

Rod stared after the plump, precisely dressed form retreating toward the river landing, and fury darkened his heart. He hated Colonel Barbour. He had never seen him, but he hated him anyway. He imagined him as looking like Mr. Hume, only more disagreeable, more smug, more plump.

Lately Rod had been so busy with the oil wells that he had hardly thought of the pending lawsuit, of the family's land troubles. Now the old problems rose in full force to vex him. He had just started turning oil into a new tank down at the river but, leaving Tom Merriman to shut off the flow when it was full, he went over to the grove through which the disputed boundary ran. He had little hope of success, but he had to look again for the marked tree that would determine their ownership. For an hour or more he plodded around the little grove, examining this tree and that, growing more and more gloomy as no mark could be found.

Finally he went to the house in search of Granny. If he could get her to talking, she might remember some little incident that would put him on the right trail.

He found Granny, Mrs. McDougal and Flora on the back porch, resting after a siege of house-cleaning. It was easy enough to get his grandmother to talking about the boundary fence, but she had nothing new to offer. "I can gie ye na help," she said sadly. "I dinna ken whaur the line—"

"Hoo-ee, hoo-ee! Where's everybody?" Jan's shout interrupted, as she came clattering through the house. "Got something to tell! Where's everybody?"

"On the back porch," Flora called, so Jan rushed out there, eager to burst the bombshell of her excitement.

She and Little Joe had just come from Petrolton, and they were flushed with news, though he didn't view it in the same humorous light she did. To him there was something pathetic about the whole affair.

"You'll never in the world guess what I've heard," she cried, her eyes shining, "so I might as well tell you. Mr. Coonts is going to drill another oil well!"

"I don't see anything in that to get excited about," put in Mrs. McDougal dryly. "People are drilling wells every day. Just because Nat Coonts struck oil with his first hole, sold it for a big sum of money, and has lived like a king ever since is no reason to—"

"But Mumsie, you don't understand!" Janet perched on the arm of Granny's chair. "There's spirits, and dreams, and all sorts of things mixed up in this."

"He'll come to na guid, mixing up wi' spirits and sic," Granny announced with finality.

But Janet was so full of her story that her tongue rattled on. "He bought part of the Hyler place, paid—oh, ever so much for it. And all because Orene dreamed about it—or something like that. Orene's become a spirit medium—"

"A spirit medium!" Rod snorted scornfully.

"Yes, she has, too!" his sister flung back. "She fell into a trance and a spirit took her to this place and told her that if she would walk over it with a hazel wand in her hands, she would find a great underground stream of oil."

"So old Nat bought the land and is going to put down a well on the strength of a dream," Flora laughed. "He must be crazy."

"That's what people say in Petrolton," added Jan. "Everybody's making fun of him."

Here Tom Merriman came hastening through the side yard, an expression of anxiety on his face. "Hey, Rod," he called, "something's happened to your pipe. Oil won't go through."

CHAPTER XX

THE DIVINING WAND

Rod jumped from his seat and rushed down to the oil well, with Little Joe, Flora and Jan right behind him.

Tom Merriman's message was the sad truth, he found. There was only a disappointing trickle of petroleum coming out of the pipe. Paraffine or other impurities in the oil evidently had choked the narrow passageway.

"Go along the pipe and knock it with hammers. That may loosen the dirt, if it's not too badly stuck."

Soon the tap, tap, tap of hammers resounded through the summer quiet. Methodically the three boys worked down the line, and under the vibrations of their blows, whatever it was that blocked the pipe evidently gave way, for the oil began to flow again.

Later in the day Janet noticed Rod at work on a curious-looking object, a tiny spindle fitted with numerous small blades.

"What are you making?" she inquired.

"A scraper to go through the oil pipes."

"Looks more like some sort of heathen devil." She made a wry face.

Rod grinned. "We'll call it our Go-Devil, then. And I hope it'll be perfectly fiendish in scraping and tearing the paraffine out of my pipes."

An idea seemed to have suddenly occurred to Jan, for she turned to her brother with beguiling sweetness, saying, "Oh, Rod, when Orene Coonts demonstrates her powers with the divining wand, won't you take me to see her do it?"

"Why do you want to fool with that silly stuff, sis?"

Janet laughed excitedly. "I think it'd be fun. Folks say Mr. Coonts wants a big crowd to come,—to see how smart Orene is, I guess."

"I'll think about it," was the best promise Roderick would make.

Desirous of making a big show, Mr. Coonts had invited the whole countryside and had let it be known that he would furnish cold ham, sausage, bread, pickles, barrels of lemonade and plenty of "store-bought" cakes.

Viewing the whole affair as a joke, and yet not wanting to miss anything, Rod and Little Joe McDougal proved willing escorts to their

sisters. When they reached the five-acre tract that old Nat had bought from Mr. Hyler, they found a large crowd of men, women and children already there, some waiting pop-eyed to see the spirits work, others scoffing openly.

A few minutes later the Coonts family arrived, driving up in grand style in a couple of the hotel's hacks. Mrs. Coonts and her younger daughters were resplendent in silks and satins and ornate jewelry, but Orene, the heroine of the day, outdid them all, being fantastically gotten up in a flowing robe of white, with a wreath of maple leaves on her head. She was so thin and pale, though, that she looked almost like a spirit.

Flora caught hold of Rod's arm, whispering, "They say she goes for days without eating. She looks like she's starving to death, poor thing!"

Several friends came up to speak to Mr. and Mrs. Coonts, but the girl moved away to stand by herself, head sunk down, hands clasping and unclasping, evidently wretchedly nervous.

After a while she looked up, managed to catch her father's eye, and nodded.

"Spirits moving ya to start, huh?" boomed Nat Coonts in heavy playfulness. "Take yo' li'l switch and show me where to sink that well."

The divining wand was already prepared, a natural fork of hazel, having limbs of equal size and length. Grasping the ends of the limbs firmly, one in each hand, palms up and arms extended from the body, Orene Coonts walked out into the field. Her lips were moving jerkily, as if she were saying some certain word over and over again, but no sound came from her.

With an awed expression on his fat red face, Nat Coonts fell into step behind his daughter. The rest of the family and the visitors followed in a sort of ragged procession, some in respectful silence, others talking in low tones.

Across the field and back again the girl led the way, stopping every now and then as she imagined the twig turned in her hand, then moving on again. Several times she stumbled and almost fell, for the ground was rough and the midday sun fearfully hot.

"Wouldn't it be wonderful if she should find oil? Don't you wish we were close to the front and could see the wand when it moves?" Jan was clearly impressed.

Little Joe nodded soberly. He didn't believe in spirits, but he wished some lucky chance would lead Orene to stop over oil sands. She was so terrifically sincere, and so pitifully frail. She looked as if it would kill her to fail.

And old Nat too; he wasn't the world's best, but he was a pretty good sort of fellow. He wouldn't deserve the ridicule that failure would bring.

Abruptly the procession came to a halt as Orene gave a little scream and stopped dead still.

Then the crowd surged forward and jammed in a circle around her. "Move over!" "Lemme see!" "I got to see, too!" a hubbub of voices arose.

"Back—get back! Give her room!" Coonts was trying to clear a space.

Rod McDougal was in the front of the crowd, his eyes on the hazel switch. Certainly the twig was moving, turning the stem end down—down.

He glanced at Orene. Her arms, her body, her face were rigid. Her eyes were glazed as if she saw nothing of what was happening.

The girl wasn't consciously bending the wand, Rod was sure of that. But neither could he believe that the wand was turning of its own accord.

Others, however, seemed less skeptical. "Look—look! It's turning over—it's pointing down!" came a chorus of whispers.

Her father was watching her breathlessly. "Is that it? Is that the place?" he demanded.

The girl nodded.

"Here, Ferdie, gimme that stake!" he snatched a ready-sharpened stick from his son and thrust it into the ground. Then he glanced around as if to impress the spot on his mind,—an oak tree a little to the right, and the ground sloping off abruptly to the left. "Here's where we start work tomorrow!"

Orene blinked, opened her eyes, stared about stupidly. She seemed so utterly worn out that her mother led her back to the carriage.

But Nat Coonts was in the heights of good humor and gayety. "Come on, everybody, and git some grub," he yelled. "Plenty for everybody! Ham and sausage,—lemonade and cake! Come and git it! Tomorrow we're going to start making money by the bucketful."

Whether or not he was starting to make money only time could tell, but at any rate Nat Coonts started to work in earnest the next morning. Full of that confidence of success that no oil man is justified in feeling until he sees the oil in the hole, Coonts was certain that Orene's well would turn out the biggest gusher in the valley, and he was determined to spare neither money nor effort in putting it down right. He'd have none but the most expensive machinery, and imported a nation-

ally known mining engineer, at a tremendous salary, to superintend operations.

While all this activity was taking place on the newly acquired Coonts property, Rod McDougal was equally busy turning another of his "impossible" dreams into reality. Lacking the money to finance the pipe line to Blacksburg, he had invited Bert Dowling and George Oliver to go in with him, and though their entire worldly possessions, pooled, were mere drops in the bucket to what would be needed for such a gigantic undertaking, still the three were daring enough to make a start with what they had.

Having become familiar with machinery while operating the refinery, Bert offered the suggestion of pumping stations to furnish the motive power for the oil, as they could not depend on the force of gravity on a line that covered such a long distance. He had seen a rotary type pump that wasn't so expensive, and that he thought would do the work. Two pumping stations, one at the oil field and the other halfway between Petrolton and Blacksburg, ought to be sufficient to keep the oil moving.

George Oliver was a bit skeptical. "Won't the jarring of the pumps loosen the joints of the pipe, and make them leak?" he asked.

"Oh, I don't believe so," Bert laughed. "That'll be Rod's lookout, to see that the joints are screwed tight."

So Roderick McDougal, with his two friends to back him, started putting down his pipe line that was to cover the twenty miles from Hard-acres to Blacksburg. Leaving Little Joe in charge of the wells, he was busy night and day with his new scheme. One of his first jobs was to secure a right-of-way through the variously owned farms and woodland stretches along his proposed route. Mostly he found these property owners pleasant to deal with and willing to let his line go through. But he ran afoul of one farmer, an important one too, for his land was strategically situated, and to have to go around instead of across it would add miles to the pipe line and thousands of dollars to the cost. Throughout the valley Old Man Sam Conley was known as an eccentric character, so Rod had expected difficulties in handling him, but he hadn't expected such difficulties.

Several times Rod had stopped by the shabby, unpainted house where Mr. Conley lived, but though he had knocked repeatedly, he had received no response. He thought the man had been away from home each time, but others who knew better enlightened him. Sam

Conley had been home all right; he just hadn't wanted to see him. Rich but uneducated, he was suspicious of all things progressive. Besides, Big John Smith was his nephew, and he would likely use that as an excuse to refuse the right-of-way. "Better make your plans now to go the long way round," said Rod's friends, "that's what you'll have to do in the end." But Rod was determined to have the refusal from Conley's own lips.

Today Rod was making a last effort to see his man. Fastening Bonnie at the gate, he was walking briskly up the cedar-bordered avenue that led to what had once been a handsome house but was now little more than a ruin, when a bullet whistled low over his head.

Startled, but with sense enough left for self-preservation, he leaped behind a convenient tree. "Hi, stop that shooting at me!" he yelped.

In answer there came a raucous laugh. "Near 'bout got ye, did I?" and a tall, skinny old man, with a rifle in the crook of his arm, stepped around the corner of the house. "I guessed ye was the young son-of-a-gun who's been pestering me all this week."

"Well, that's no reason to be shooting at me," Rod retorted angrily, daring to come

from under cover as the gun was pointing in the other direction. "I just wanted to see you on business."

"Business what would ruin my land," the other growled. "Big John's been talking to me about it. Said them leaking ile pipes would spile my 'tater patch. No, sir, I ain't—"

"I'd guarantee my pipes not to leak," Rod broke in eagerly. "And if they did, I'd make it up to you. Besides, I'd bury 'em deep, two feet down, more if you said, so your plow wouldn't touch—"

"Two hundred feet'd suit me better," Conley laughed sarcastically. Casually, but with a threat behind his movements, he swung his gun around. "Better git going, young feller," he suggested. "I ain't aiming to plant no pipes in my ground, now or never. Let them as hauls ile do yo' toting, and don't be messing up the Lord's good earth with no newfangled pipe contraptions. And don't be pestering me 'bout it no more, 'cause some days I can shoot straighter than I did this morning."

So Rod beat a discomfited retreat.

There seemed to be nothing left for him to do but to lay his line the longer route, and the next week Rod hired a gang of workmen and started his ditching.

At first all hands worked with pick and

shovel, but as the ditch lengthened out, a persistent worm burrowing its way across fields and hills, the gang was divided and part was set to putting down the pipe.

For this pipe line, which was to be his "big work," Rod was using the best material he could buy, tough, strong four-inch pipe with screw sockets, and he was putting it down at a uniform depth of two feet, which he considered safe from ordinary disturbances.

With speed to make his heart glad, the work went smoothly on. The first quarter mile was laid. The second quarter would pass through a plowed field and the digging wouldn't be so hard there.

Whistling shrilly, satisfied with himself and the world, Rod went to work early the next morning. But as he reached the scene of his labors, his whistling changed to a groan. His men were moving about in restless groups, looking at the wreckage of their weeks of work.

Someone had come in the night, and had blown up the pipe line with dynamite.

CHAPTER XXI

WARFARE

A great yawning hole lay at Rod's feet. A length of twisted, misshapen pipe upreared itself at one side. Splinters of iron and bits of broken rock were scattered all around.

"Pretty rotten, ain't it?" One of the workmen stepped up beside Rod. "Low-down way to treat a fellow, I say!"

"It's those teamsters done it, take it from me," put in another. "I'd have the law on Big John Smith and all that bunch of scoundrels."

"Don't talk so brash, buddy," admonished an older man. "Nobody's seen 'em around here. Don't be starting something you can't stop."

In his own mind Rod McDougal was sure that this was the work of the teamsters. By their talk, their ridicule, they had exhibited their jealousy of the new method of transportation that threatened their jobs, and in many small ways they had tried to hinder his work, but he hadn't thought they would ever go so

far as to commit violence on his property. But as one of his men had said, nobody had seen any of the teamsters blow up the pipe. To accuse Big John, or some of the others, might be to provoke harsher measures.

Turning such thoughts over in his mind, Rod went up and down the entire line, examining it carefully, but nowhere else had any harm been done. Damage had evidently been confined to what one stick of dynamite would do at one spot. As this was the case, repairs could easily be made. And it seemed the best plan to follow would be to keep his mouth shut. He didn't think the teamsters would have the nerve to try such tricks a second time.

So Rod went back to his men and set them to work. New pipe quickly replaced the few pieces that had been torn out by the force of the explosion, and soon things were moving as if nothing had happened. Perhaps not quite that calmly, for on several nights Rod and Little Joe took turns patroling the danger zone. But as time sped by and the pipe line lengthened, and no more harm came to it, even this vigilance was relaxed.

As the scene of activity drew further and further away from the house, Rod stopped coming home to midday dinner. Sometimes

he took a lunch with him, sometimes the girls or Little Joe would carry food to him.

Today as Little Joe cut across the field, a basket of lunch in his hand, there was a cloud on his face. Was this all that life was ever to hold for him? Was he to be forever bound to work with this greasy, ill-smelling petroleum? He didn't mind work, but he wanted to work at something he liked. Sometimes he thought he would like to be a minister, to go away and study, some day to have a church of his own and have men bring their spiritual needs to him so he could help them. But every time he thought of broaching this subject to the family, of telling them that he wanted to break away from the life at Hardacres, something within held him back. He shrank from the fear in his mother's eyes that he wouldn't be able to fulfill so high a calling, from her outspoken reminder that he hadn't been able to control his own temper and so wasn't the one to guide others to holy thoughts.

Little Joe sighed. Perhaps his mother was right. He did have a miserable temper. Otherwise he wouldn't be so glum and quiet when the others were cheerful and laughing. But Rod was happy in his work; he was doing what he wanted to do. Oh, if he only had

some work in which he could take pleasure and pride!

Though autumn had begun to flaunt its red and gold, the middle of the day was still warm, and Rod withdrew with his lunch to the shade of a tree. While he ate, Little Joe talked to him.

"Reckon we aren't the only ones that run into trouble," he remarked gloomily. "Mr. Coonts seems to have run into it plenty."

"How's that?" Rod asked, a ham sandwich poised halfway to his mouth.

"You haven't heard?" The other looked his surprise. "I'd have thought these fellows'd been talking about it. That well of Orene's was as dry as a bone, you know. Folks say he lost every cent he had in that hole. Heard this morning he'd gone to work for Alf Hyler. Alf's putting down a well on the other side of Petrolton."

Rod nodded his head slowly as he munched his sandwich. "Must be pretty hard on old Nat," he said. "One day rich as a king, next day working as a common laborer."

"Hard on his wife—and the girls, too," Little Joe added soberly. "Think how Orene must feel."

Lunch over, Little Joe went back to his job of barreling oil at the Big Gusher, and Rod

went back to his. To hurry the pipe line to completion, he was working along with his men, using pick-axe and shovel as tirelessly as any. Each night found him dead weary, but satisfied with the progress the day had brought. Over a half mile of pipe was down now.

This evening, however, brought an unexpected turn of affairs. As he entered the house he found a letter for him on the hall table, but before he had time to open it, Tom Merriman came running up in hot haste, yelling, "Big John's at it again! Come on! We got to fight!"

Rod thrust the envelope into a pocket and grabbed the pick-axe he had dropped by the steps. In an instant he and Tom were rushing back down the hill.

"A mob set on the boys—as they were leaving work," gasped Tom. "Wanted to take their tools. I slipped off—to get you."

Rod's blood was boiling. He was tired of this interfering. He was ready to fight. But by the time he reached the end of the line, all was quiet again. Though there were signs of a scuffle, attackers and attacked were gone.

"Look what they left us," muttered Tom, pointing to a pile of broken tools.

The other's brow darkened. So they

thought they'd stop him by smashing his tools! He'd show 'em it would take more than that to put him out of business! There were other shovels and spades to be had! The first time he'd kept quiet, but this time he'd tell, get public opinion on his side,—make 'em stop this foolishness.

"You stay here and keep an eye on things." There was a shrill note in Rod's voice. "I'll be back in about half an hour. Going over to Petrolton and get new stuff—now, to be ready for my men to start work tomorrow morning."

A skiff was kept tied down at the landing. It was only a short row across the river, so Rod was in Petrolton before Mr. Bemis closed his store.

"I want pick-axes, shovels, spades," he announced loudly. "Two dozen of each,—and I'll take 'em with me."

Mr. Bemis nervously shook his head. "Shutting up now. Can't you wait till tomorrow?"

"Got to have 'em now." Rod was surprised. Usually Mr. Bemis was anxious to make a sale. "Want to start my hands to work early." He leaned across the counter, anger again searing his heart as he thought of the mean trick played on him. "Some of those lousy

teamsters got jealous of my pipe line and tried to break things up. Smashed about a hundred good tools. But I'm buying a whole new outfit—and they'll find we'll go on working in spite of—"

"I can let you have a couple of shovels,—and three or four spades," the old man interrupted timidly. "Best I can do."

"Two or three shovels—spades?" Rod blurted out. "Why, you've got more on hand than that!" He craned his neck. "There's a stack of 'em in the side room."

"Best I can do for you," the other repeated stubbornly. "Those—those are things John Smith asked me to hold for him."

"Big John—" Suddenly Roderick saw a great light. Mr. Bemis knew what had happened—and he was siding with the wagoners.

"I'll take what I can get, then," Rod announced flatly, paid cash for his purchase, and left.

He went by Lane's hardware store, but as he expected, it was closed. He thought he had passed Mr. Lane as he came up from the river. So—the merchants were backing those roughnecks! This was a new view of the situation. He had expected sympathy and support, and he hadn't got it. But now that he thought on the subject, he realized

that it was not surprising that many should favor the other side. The teamsters formed a large part of the population, they generally had families and the storekeepers depended on them for trade.

Slowly Roderick rowed back across the river. He was finding that bucking popular opinion wasn't as easy as he had imagined.

It was almost dark when he reached the field. As he started across, curious noises came from all along the pipe line, a deep rumbling changing into a sudden roar. Sand and gravel shot up almost in his face; light flared around him. He threw himself back, flat on the ground, and the explosion passed over him.

He wasn't hurt—but where was Tom Merriman? What had happened to him?

"Tom, Tom!" he yelled as soon as he got his breath.

Cautiously he raised himself up. The sound of his voice had evidently startled the marauders, for through the dim light he saw two figures running down toward the river.

He lay quiet a minute, then looked again. No one was in sight, so he supposed there had been only two.

Everything was so still that he feared his friend had been hurt, or had been taken away.

But after a little search he heard something threshing about under the bushes. Investigation proved it to be Tom Merriman, bound and gagged, but otherwise unhurt.

"Tied me up like a dummy," he sputtered, as Rod released him. "Big John and Larry Brown. Had half a case of dynamite with 'em—to blow up the pipe—"

"They used it," broke in Rod bitterly. "Had explosions popping all around me."

"Big John left a message." Tom tenderly rubbed his jaw where the gag had cut into it. "Said tell you he meant business—that he'd keep on making trouble till you gave this thing up. Said tell you plenty of people were back of him—plenty didn't want this pipe line."

"Discovered that myself, tonight," Rod answered wearily. "Let's see how bad they tore things up."

Night had settled into clammy blackness by this time, but by the glimmer of matches, then by the light of a flickering torch, the two boys looked over the wreck. The damage was much greater this time than before. In not one but a dozen places were deep, jagged holes and twisted lengths of iron.

"Done us up terrible—terrible!" Tom Merriman kept repeating.

But Rod's hurt was too deep for words to

ease it. In the silence of despair he viewed the wreckage of his hopes.

There was nothing they could do now, so at last the boys went home. There wasn't any use even to post a guard. That would merely be locking the stable door after the horse was stolen.

The house was dark when Rod got home. He remembered that Little Joe had taken the girls to a party at the Hylers', and evidently the older folks were asleep. He let himself in and crept quietly up to his room. He was angry and discouraged, too. So much money spent—lost, and he saw no way of getting it back.

As he undressed, Roderick remembered the letter in his pocket. It was from Bert, he had noticed. Perhaps it had something in it that would cheer him up.

But as he read, his frown of worry deepened. Bert Dowling's news was anything but good. The two rotary pumps needed for the pumping stations cost more than they had anticipated. And because the pipe line company had no financial rating, they could not get credit, but would have to pay cash.

Bert's letter ended in frantic questioning. What were they to do? Could Rod scrape up the money?

CHAPTER XXII

THE PROVING OF LITTLE JOE

Roderick McDougal spent an unhappy night, harassed by thoughts of failure. He hated to give up the grand project on which he had set his heart; it would be a sad hurt to his pride. But money was running alarmingly low,—and then this trouble with the teamsters. Even if he could conquer their jealousy and quiet things down, and pay cash for the pumps, he couldn't go on laying the pipe, for there would be nothing left to pay for the work.

But he didn't want to give up. There ought to be some way out. Borrow money? Nobody would lend him anything, with the possibility of losing the Big Gusher hanging over his head.

As morning dawned, Rod got up and wrote to Bert not to buy the pumps,—no money.

He sighed as he sealed the envelope. It looked as if he and Bert and George had bitten

off more than they could chew. But deep down in Rod's heart was the resolve that he was only temporarily giving up the idea of his long pipe line. Some day he was coming back to it again, and then he'd put it through.

For days after he had broken the news to the family, Rod went around like one in a stupor. He tried to interest himself in the other work, but before he knew what he was about, he would find himself wandering off to one side, his thoughts apparently a million miles away.

And Little Joe seemed to be in just as bad a fix. He grew melancholy, and was irascible and crabbed if one merely spoke to him.

With head sunk forward and shoulders drooping wearily, Little Joe walked slowly past the scattering houses that clung to the outskirts of Petrolton, squalid shacks where the families of unskilled oil-field workers lived. From one house came the wails of a sickly baby. In front of another a group of children were squabbling. At another door two slovenly women stood gossiping. Any other time he would have felt pity for humans condemned to live in such filth and misery, but today he had thoughts for no one but himself. Granny had sent him to Petrolton on an errand, but he had become so absorbed in

his own unhappiness that he had forgotten why he had come.

He felt so miserable. Not that he was physically sick,—but his heart and his brain felt as if a smouldering volcano were directly beneath them. He couldn't go on doing, thinking, living as he was. He didn't like working with petroleum. The sight and smell of it disgusted him. He wanted to get away from it and work at something that was his own to create, to plan for. Where? What? He didn't know. He had worked in the oil-fields so long that he didn't know anything else. He had once longed to enter the ministry,—but he wasn't good enough for that. It seemed that he wasn't good enough for anything. Every day he found himself growing more bitter, more glum.

Self-pity was wrong, he knew. But he didn't seem to have will power enough to keep from thinking of himself. All his thoughts, all his desires seemed to end in frustration. Perhaps this was punishment for his evil temper, as his mother said.

Blind to the autumnal glory of orange and red leaves that still glowed through the dusk, heedless of the invigorating coolness that at another time and in another mood would have sent the blood rushing joyously through his

veins, the heartsick boy wandered listlessly on. The greasy muck of the streets was exchanged for the greasy filth of the oil-field roads. He was out of the town now, in the midst of towering derricks and ramshackle engine houses. Every now and then workmen hurried past him, eager for home and supper, but Little Joe hardly noticed them.

Suddenly the twilight quiet was broken by a thundering detonation, the ground beneath the boy's feet trembled, and a terrifying flash of fire burst up from a well not a hundred yards before him.

In an instant bedlam broke loose. Anguished screams, shouts, yells. "At Hyler's well! Anybody killed? Help! fire!"

Swarms of people sprang up from nowhere. Everybody started running to where a burning derrick was outlined against the darkening sky.

His own troubles forgotten, Little Joe ran with the crowd,—was one of the first to reach the scene of the explosion.

"We got to get 'em out,—there's men in there!" Alf Hyler hesitated, then plunged desperately beneath the blazing crossbeams. Little Joe followed. Together they dragged a man to safety, half suffocated, but not seriously burned.

"Old—Coonts—back there," the workman managed to whisper weakly.

Alf turned away. Perhaps the fire was too terrifying. Perhaps he hadn't heard.

But Little Joe had heard. There wasn't time to think whether or not he was afraid. Instinctively he shrank away from the scorching flames. Then before he knew what he was doing, he plunged into the inferno a second time. A half minute—a minute at most, and he had found Nat Coonts, lying insensible, and was pulling him to the open.

Blinding smoke. Stinging flame. Little Joe groped to crawl beneath the crossbeams. Then many hands reached out and lifted his burden and himself beyond the danger of the blazing derrick.

Little Joe blinked and dazedly passed his hand over his head. Hair singed, face and hands blistered, but not otherwise hurt.

Then his eyes fell on the inert form lying at his feet, and for the first time he saw how terribly burned Nat Coonts was,—clothing charred to rags; face, limbs, body a raw and livid red.

Everywhere about them people were running to and fro, talking excitedly. The workman that Alf and Little Joe had rescued was recovering enough to tell what had happened.

"We was gittin' ready to leave," he groaned as he recalled the horrors of the moment. "Coonts dropped a pick-axe,—struck a match to look for it. Gas caught fire, I guess. Nearly did for us this time—"

Little Joe feared Nat Coonts was "done for." But as he stooped over him, the man moaned, struck out with an arm. "Fire—get me—out," he muttered.

Whipping off his coat, the boy jumped up. "Get off your coat," he commanded Alf Hyler. "Got to fix some way to carry Mr. Coonts to a house. Get a doctor! Can't leave him to die like a dog out here!"

"Best let him alone. He's past helping," several of the spectators remarked callously.

But Little Joe insisted, and found several others willing to help him.

"He's been living in that cabin—over there." Alf pointed toward the south edge of the field. "By himself. Said his folks were in Blacksburg, working. I'll help you tote him."

But Mr. Coonts was heavy. It took four men to carry him to the rough little house and lay him on the hard bunk.

Alf volunteered to go for a doctor. Little Joe said he'd stay. The others went back to the fire, not so much to be there in case of danger, for the flames were dying down, as

to experience a pleasurable thrill in standing around, watching, gossiping.

Left to himself, Little Joe found a stump of a candle stuck in a bottle. He lighted it and sat down on a box to watch by the dying man, for dying he was sure Nat Coonts was. He didn't see how one so fearfully burned could have lived even this long. He was now insensible. Perhaps death would mercifully take him before returning consciousness brought its attendant agony.

Long minutes of silence dragged by. Little Joe sat hunched forward, chin cupped in palm. If there were only something he could do to help Nat Coonts! Never in his life had he wanted anything as much as he now wanted to bring ease to this man. But he felt helpless. There was nothing that he knew to do. He knew nothing of medicine, to give surcease to pain. He wasn't good enough to talk of God, to try to give spiritual comfort.

Wind came whistling through the cracks in the wall, the candlelight flickered, and long shadows danced awkwardly on the rough floor.

The boy shivered. How hard it was to understand life! Not two months past, Nat Coonts had been rich, living in luxury. Now he was dying, penniless, alone except for a

casual acquaintance, his family too far away for word to reach them in time for them to come.

Little Joe choked down a lump in his throat. The best prayer he could make would be for Old Nat to go before he ever knew his pain.

But such was not to be. A strange, strange answer was to come to Little Joe's prayer before the dawning.

A moaning, a threshing about on the bed brought the boy leaping to his feet.

Nat Coonts' eyes were open, fever bright, and his mouth was twisted in pain.

"Where's—where's Delia?" he gasped.

"She'll be coming," the boy soothed. He had been afraid of this moment, afraid of being tongue-tied and helpless before such a question, but now he felt an unknown strength and calm within him. "Isn't there—something—I can do—for—you?"

The other groaned, flung himself this way and that. "The fire got me," he said simply, his mind evidently perfectly clear. "I'm going—don't matter—nohow. Nothing but a tramp—Delia was ashamed—was scared—I'd tell—"

"There, there, don't worry over that! You've been a good husband, a good father."

"I don't know. I ain't always done right." Fear overshadowed the pain in the feverish eyes. The dying man half raised himself, clung to the boy's hand. "Pray for me!" he begged. "I been no-count, ornery, mean—but I reckon He'll hear—if you—do the—asking."

Little Joe prayed. An hour ago he couldn't have done it, but divine inspiration seemed upon him now, for from his mouth came words of comfort, benediction, love.

The terror faded from the man's eyes. The pain-twisted lips even tried to smile. Then all was over.

When Alf Hyler and the doctor came, Nat Coonts was dead. Little Joe left them to do what was necessary, and walked out of the house into the cool darkness of the night. Head high, shoulders thrown back, he strode like a conqueror. The pitiful scene he had witnessed was forgotten beneath a new emotion. Exaltation was rushing through him like the current of a mighty river, bearing his spirit on the crest of its flood. This was his hour triumphant. This night the Way had been made clear to him. Unworthy though he was, he had seen that the Lord had work for him to do, and he would do it.

Days passed by, and Little Joe received his

due praise for his heroism, but his splendid new knowledge he kept to himself. It was too precious and strange to tell to anyone else yet.

But his mother noticed a difference in him. "I don't know what's come over Little Joe," she confided to Granny, "but he doesn't mope around like he used to."

Others of the McDougals, however, were too disturbed over family problems to notice whether or not there was a new gentleness to their brother's smile. The time set for the lawsuit was drawing near, and Lawyer Hume had warned them they could expect Colonel Barbour to put in his appearance any day.

Roderick particularly was down in the depths of gloom. Having to postpone work on his pipe line indefinitely had been a cruel blow to his pride. And though not only he, but every member of the family had examined the grove time and again in search of the marked tree, they were no nearer establishing their ownership than they had been months ago. He felt now that if he lost the Big Gusher, he would never have the heart to drill another oil well. He would want to leave Rainbow River valley and never have anything more to do with the petroleum business.

Pushing back his chair, Rod got up from the table, his plate of meat and vegetables almost untouched. The others might be able to eat, but somehow he had lost his appetite. He wouldn't feel right again until this lawsuit mess was over. Even if they lost the land, it would be something of a relief to be done with this harassment. He wished that Colonel Barbour was here now and that they could have it out with him, instead of waiting until goodness knew when.

Wandering disconsolately out on the porch, he stood leaning against a pillar, idly watching a man on horseback coming down the road. Fellow seemed to be in a terrible hurry —riding that fast.

Then Rod was startled into more than idle interest as he recognized the rider as George Oliver.

Drawing rein at the gate, George flung himself off and came hastening up the walk, calling excitedly, "Get your horse and come with me! Something important has turned up!"

CHAPTER XXIII

THE NORTHWEST CORNER

"What is it?" Rod had to know first.

"The map—the lost linen map!" George whispered hoarsely, fairly pushing his friend toward the barn. "Don't let 'em know. Nothing may come of it," nodding in the direction of the house, "but I think we're on the trail at last."

Rod seized him by the arm, incredulity in his eyes. "You know where it is?"

The other shook his head. "I think I'm going to find it. I've just come back from Kentucky, and of course I asked mother about the map. She couldn't tell me a thing about it, but she did remember that some of grandfather's stuff—old books and papers and surveying instruments—was left at Cousin Jane Anderson's house, about fifteen miles up the river here, near Warrenville. Maybe the map is there. Mother said she was almost sure Cousin Jane hadn't destroyed any of the things."

After so many disappointments, Rod hardly dared hope, and yet the other's enthusiasm inspired him, too.

Saddling Bonnie, he slipped away with George Oliver while the family was still at the dinner table.

Warrenville was not many miles distant, but Rod McDougal had seldom gone there, for it was the merest dot on the county map, a half dozen houses and a store, and dull. So, though he had seen Miss Anderson a few times, he didn't know her at all well, and it had never occurred to him that she might be kin to the old surveyor and able to help them recover the lost map.

Though Bonnie was fresh, George's horse was tired for he had left Blacksburg at daybreak. The afternoon was almost spent before the two arrived in Warrenville.

As they went up the box-bordered path to the old-fashioned stone cottage almost hidden by a mass of trees, shrubs and vines, Rod felt that he must be nearing the trail's end. This looked like a place that would have secret nooks and crannies in which any number of lost maps could be hidden. And when Miss Anderson opened the door, he found her a tiny old woman, wrinkled and white-haired, with a shrewd gleam to her eyes. She seemed

the ideal guardian of ancient treasure-trove.

George stepped forward. "Good evening. You don't know me, of course, but I'm Carrie Whatley's son, George Oliver—"

"And I'm your Cousin Jane," the old lady chirped smilingly. "How d'ye do?" she turned to Rod. "Be you one of Carrie's boys, too?" Her eyes were searching. "Your face looks familiar, but I can't seem to place you."

"He's Rod McDougal—of the McDougals of Rainbow River," George explained.

Cousin Jane received them hospitably and invited them into her sitting-room where red geraniums bloomed in the south window and a cat dozed on the hearth. She insisted on serving them with tea and cookies. "Boys are always ready to eat," she observed with a chuckle. Then she had to ask about George's mother, and Rod's grandmother. She did so much talking herself that the boys began to fear they would never get a chance to make their errand known.

As Rod fidgeted in his chair, casting appealing glances at him, George finally interrupted her. "Say, Cousin Jane, when mother moved away from this part of the country, didn't she leave a lot of grandfather's old stuff with you?"

The woman thought a minute. "She left some of Cousin George's surveying instruments, I believe."

"Some books and papers, too, didn't she?" George persisted.

"I—I don't know. There are things in the attic I haven't seen for years. Some of your grandfather's books might be there." Shrewdly she peered at her visitors over her spectacles. "How come you so interested in Cousin George's things? What you looking for?"

"Oh, I'm not looking for any lost gold or jewels," George laughed. "Just a scrap of paper with a map on it—and it won't even belong to me if I find it."

As the old lady's eyes were nearly popping out of her head with curiosity, Rod explained what George was hinting at. As he told about Corporal McDougal's map that Mr. Whatley had borrowed and which death had prevented him from returning and which George believed was put away with other forgotten papers, Cousin Jane slowly shook her head.

"Maybe—maybe!" she muttered. "But I don't remember Carrie ever saying anything about such a map. And anyhow, why didn't she give it back, instead of packing it up?"

"She didn't know anything about it." George was quick to defend his mother. "Let us take a look at some of the stuff left here, won't you? We might find it."

"Certainly, certainly! Look all you want." Cousin Jane bustled up, got a key out of her desk drawer, and led the way up the narrow stairs to the attic.

As she unlocked the door, however, she gave a little cry and turned abruptly back. "Now, isn't that just like me," she laughed apologetically, "forgetting to bring a candle —and dark almost here!"

"I'll get it for you. Tell me where," both boys offered. But she said she could get one quicker than she could tell them where to look, so she went down again, and soon returned with a light.

The house was small, but the roof was high-pitched, so the attic was more capacious than appeared from the outside. And it needed its entire capacity, for it was full, brimming, almost running over.

As the candle threw its dancing beams on bundles, bags, and boxes piled in disorder and covered with the dust of ages, Rod was smitten with fear that they would never live long enough to go through this conglomeration. Looking for one particular object in this attic

would be like looking for the proverbial needle in the haystack.

"It's fearfully cluttered," Cousin Jane admitted. "Didn't know it was this bad. Haven't been up here in a coon's age."

"Have you any idea where we ought to start?" George inquired.

"Un-unh unh," the old lady grunted, mouth shut to keep out the dust. She had energetically attacked the heap of bags nearest her and had stirred up a thick cloud.

When she was able to speak once more, she suggested that they hunt for the surveying instruments for if other things had been left, they'd probably be close by.

After a half hour or more of peeping behind boxes and pulling through bundles, Rod unearthed a sack of clanking chains, pins, lock-levels and the what-not paraphernalia of an old-time surveyor.

George let out a shout as he saw it. "What did I tell you? We're on the right track this time. Dig deeper! We've got to find it."

Again Rod pawed under the heap. As he straightened up, with cobwebs across his nose, he held a couple of time-stained shoe boxes.

Seizing the light to hold it nearer, George made out the name "G. Whatley" scrawled in pencil across the top.

"That's his!" he breathed in awe. "Open it —quick!"

With fingers that trembled, Rod pulled at the knots. So near the goal, it would be almost more than he could bear to be disappointed now.

At last the box was open. While the others watched anxiously, he ran through its contents—letters, papers, news clippings.

"Hey, stop! What's that?" George reached in and drew out a thick packet of unusually heavy paper folded to the size of a long envelope.

Carefully he unfolded it. There before him, on a strip of linen-backed paper some thirty-six inches long by eight inches wide, was a faded map labeled "Hard-acres Farm—1791."

"Great goodness, that's it!" George could scarcely believe his eyes.

Rod's gaze had leaped instantly to the debated corner. "There—that's right!" His finger followed the line. "See, it runs out in a point, just the way we have it!"

With utmost precision Corporal McDougal had plotted his tract, black marks outlining its slightly irregular shape, faint green marks squaring it off into acres. Numerous wavy lines, with every now and then an ar-

row, showed the southward course of Rainbow River, the western boundary of the land grant. In red ink, one place was lettered "home clearing"; others "grain field," "pine," "elm," "walnut." In the northwest corner was the number 143 on the crude representation of an oak tree. Below was a note to the effect that the exact corner was a post, but that the number had been cut on a tree only a few feet off the line.

"Gee, this'll just about knock the props out from under Hume!" Rod burst into jubilant laughter, seeming to realize suddenly the significance of the find. "I'd like to see 'em try to take our Big Gusher now!"

Jane Anderson's eyes were shining. She was as delighted as the boys over their discovery. They were for setting off right away to break the good news to the folks at home, but she made them wait to get a bite of supper. "Why, you'll be half starved before you get all the way back to Hard-acres!" she cried. "And I want to do something for a celebration and cut that big chocolate cake I made this morning."

With loud farewells and fervent thanks, Rod and George rode off, with the precious map tucked safely in Rod's inside coat pocket.

The family was in bed when they got back

to the farm, but Rod had to arouse them to rejoice. All were excited and happy over the news, but there wasn't a face among them any happier than George's after Flora had whispered to him that she had always known that he would be the one to save the Big Gusher for them.

Next morning, almost as soon as there was light in the sky, Rod and George were out to locate the marked tree.

"We'll find it first thing," Rod prophesied gaily, hastening his steps through the dewy grass.

"Can't miss it," George agreed, following right behind him.

They didn't find it first thing, though. Several trees formed a group, any one of which might be the marked tree. Together and separately they examined them, but not a sign of a mark could they find.

George's brow was furrowed. He looked around at the various stumps and at the two or three decaying logs that lay on the ground. "You don't reckon—anybody's—cut it?" he asked hesitantly.

Rod turned quickly around, fire in his eyes. "Cut it?" he bellowed. "Who'd be fool enough to cut such a tree?"

"Anybody who didn't know about it,"

George flung back coolly. "That family of squatters—the Coontses. Didn't you tell me they'd moved fences—taken possession of this corner like they owned it?"

"They did that!" Rod admitted, abashed at his outburst. This second disappointment had whipped his feelings to the raw, and he had been ready to flare up at the least word. He remembered now that Granny had spoken of Nat Coonts cutting some trees when he had first moved the fence, years ago. And Nat Coonts was dead now, and wouldn't ever be able to tell them what trees he had taken off for firewood.

With the map spread out in his hands, Rod studied it. According to directions, the marked tree ought to stand at such-and-such a place, but there was nothing there but rotting stumps, saplings and new undergrowth. Beyond the fence stood a twisted old tree, but it was too far off the line to be a possibility and, besides, he had already examined it and found nothing.

With a sigh, he folded the map together again. After a long search it had been found, but it wasn't a bit of help to him. The ownership of the land still hung in the balance.

CHAPTER XXIV

CONCLUSIVE EVIDENCE

When the breakfast bell rang, George Oliver answered its call, but Rod remained where he was, by turns given over to frantic search or moody languor, and without the slightest thought of food. When he did go back to the house it was mid-morning, and Mr. Hume was waiting in the parlor.

His father met him at the door. "I was just getting ready to send for you," he said nervously. "That lawyer is here. I told him about the map, and he wants to see it."

Lewis Hume greeted the boy with condescending affability. "I came to tell your father that Colonel Barbour will arrive today at noon, and that he requested an appointment with some of you this afternoon, to look over the land."

"Name the time to suit his own convenience," Mr. McDougal answered courteously, but Rod could get out nothing more than a sullen growl. He was heartsick, disgusted.

"You have the map, son?"

The touch of Mr. McDougal's hand brought Rod's thoughts back to earth. With a word of apology he produced the time-yellowed document.

Avidly the lawyer seized upon the drawing, his shrewd eyes taking in every line, every notation. "Interesting, quite interesting, I assure you!" Then looking up, he inquired acidly, "You have located this marked tree, I presume?"

"No-o-o," Rod answered slowly. "Not yet. We haven't had time."

"I dare say you've spent the morning looking for it." The man seemed immensely relieved. An instant longer he scanned the map, then flipped it contemptuously over on the table. "You can't expect us to accept this as proof of ownership of the land when the marked tree it shows can't be located," he observed, getting up to go. "That would be too ridiculous to consider. However, I'll tell Colonel Barbour about your map, and when he comes this afternoon, he'll very likely try to help you find your tree. Good day."

As Mr. Hume's plump figure moved pompously down the front walk, Rod watched him, his heart filled with bitterness. Colonel Barbour—Colonel Barbour! How Hume loved

to roll the name about on his tongue, like a rich morsel of food. And how he hated the name—and the man, too!

Coming up behind him, his father voiced his thoughts. "There doesn't seem to be any way of settling the matter out of court," he said sadly. "The suit will go on, and we'll lose the land, I guess."

Early in the afternoon Mr. Hume and Colonel Barbour rolled up to the McDougals' gate in Barbour's big motor car.

Mr. McDougal greeted them cordially, and called out Rod, who shook hands with constrained politeness.

Hume had told Colonel Barbour about the map, so at his request it was brought out. With genuine respect for so old and valuable a thing, he took it into his hands, and while he studied it, Rod studied him. In spite of his prejudices, he had to admit that the man was a handsome and gracious gentleman, not at all on the order of his lawyer. Well built, well groomed, with close clipped iron-gray hair and lean, smooth-shaven face, he exuded an air of prosperity. It was not this, however, but the straightforward look of his eyes that impressed the boy.

"A most interesting piece of work! Immensely valuable as an antique, and a family

treasure." He looked up suddenly, and his eyes met Rod's. Surprised, Rod found himself smiling in answer. He hadn't expected to like Barbour, he hadn't wanted to like him, but somehow he found himself liking him anyway.

Here Granny appeared, and Colonel Barbour was introduced to her, bowing over her hand as if she were a queen.

Granny's keen old eyes surveyed him for an instant, and her smile thawed to friendliness. "I hope ye'll na get what ye're after here." She gave a dry little chuckle.

"Oh, don't put a bad mouth on me, as the negroes say," and his laugh answered hers.

While the men were talking of one thing and another, the old lady took the map and looked it over carefully. Then, when the lawyer urged that they be going down to see about the boundary line, she said nothing, but quietly joined the party.

The path led down the hill through the oil section. As they passed by the Big Gusher, where Little Joe and Tom Merriman were at work, Mr. Hume pointed out the flowing well to Colonel Barbour. "Pours out nearly two thousand barrels per day, I've heard." Then he added in a loud whisper, "Be worth a mint of money to you some day, sir."

Colonel Barbour made no comment but he looked annoyed, and Rod noticed he briskened his pace to leave the lawyer a few steps behind.

Rod had no hope of saving the land, so he merely stood to one side while the others discussed the boundaries. He noticed that Granny was prowling about among the bushes, but he didn't offer to join in her search. It was no use—the marked tree had been cut down years ago, he was sure.

Lewis Hume was for forcing the issue by dragging the case to court immediately, but Colonel Barbour demurred. "We must take care that our haste doesn't work an injustice," he said. "I only want that which is rightfully mine."

"There is no doubt but that this is rightfully yours," the lawyer muttered sullenly. "Haven't we the state map to prove the line is straight? And these people can't find that marked tree they seem to set such store by."

Here an exclamation from Granny made everyone hasten in her direction. She had pulled some vines off a rotten old tree trunk, hardly more than a stump, with a sapling growing out of its side.

"I daurna hope ower muckle frae ye," she murmured, "but ye micht be—"

"What is it, mother?"

Rod felt rather than heard the quaver in his father's voice.

Without a word she pointed at the tree. It was gray-green with moss and decay, but directly beneath her finger was a discolored, bruised-looking spot.

Mr. McDougal leaned nearer to see better. "There are no numbers cut in there," he said as he straightened up.

"Of course not," grunted Mr. Hume.

Granny glared. "It's darker there than the rest," she persisted. "Like a scar healed ower."

"Just a rotten pla—" Hume was beginning, when a glance from the Colonel silenced him.

"We'd better investigate this," put in Colonel Barbour quietly. "I've heard of cases where incisions were made in trees, then the downward current of sap in summer caused new wood to grow over the wounds, hiding them completely except for a slight discoloration of the bark."

"Go, get something to cut wi'," Granny directed excitedly.

At last aroused to hope, Rod set off on a run to the house, and soon returned with an axe. As he proceeded to "block" the spot, taking great care not to crush or tear the wood, a

variety of emotions were displayed on the faces that pressed around him—pride on Granny's, painful anxiety on his father's, irritation on Mr. Hume's, and casual interest on Colonel Barbour's.

As the chips fell out, Mr. McDougal examined them eagerly. "New growth—now, that's older, much older," he muttered.

Finally Rod's blows reached the heart of the tree. He gave a deft twist to the axe and brought out the "block," a good-sized chunk of bark and wood.

"Easy now—don't split it!" said Colonel Barbour.

With the others hanging over him, Rod began the removal of the supervening layers of growth. His fingers were all thumbs, it seemed, when he tried to be so careful. Would he actually find the mark, or would this be another of the false trails he had followed so hopefully?

As he peeled back a strip, his father, crouching over him, gave a little cry. "There—look! There's something—"

All the heads clustered together. Slowly the layer was removed. Beneath it was something, indeed—three blurred, twisted marks that could not be anything else but the number 143.

Awed, they gazed at the almost magical appearance of the record of long ago.

Lewis Hume was the first to break the silence. "This lets you down flat, Colonel," he rasped. "Not any court in the country would refuse this as proof of ownership. I advise you to withdraw your claim."

Frederick Barbour accepted defeat gracefully. He held out his hand to Mr. McDougal. "I'm sorry I caused you all this trouble," he said sincerely. "I thought the land was mine. If it was, I wanted it. As it's not, I—I wish you well with it." Suddenly he turned to Rod. "There are some things I'd like to talk over with you. Would you mind coming with me to my room at the hotel?"

"Why—I—yes, I'd be glad to," Rod stammered, so dazed he hardly knew what he was saying. Events had transpired so quickly these last few moments that he wasn't sure what had happened. But he did know that a crushing load had been lifted off his heart, that he could breathe freely again.

Surprises, however, were not yet over for Roderick McDougal. In Colonel Barbour's room he received one of the biggest of his life. Just as he had found himself attracted against his will, so had the other been attracted to him.

Through a few skilfully put questions, Barbour discovered that the lawsuit had held up the development of the McDougal land, and also that the McDougals were too poor to put into execution all the schemes Rod had for enlarging the oil business.

Drawn out by so sympathetic a listener, Rod told of his dreams to develop a foreign trade in petroleum, of a scheme to fix up packages of lamps and oil to send to consuls in foreign ports to introduce oil in other lands. And of course he couldn't keep quiet about his pipe line, his new transportation that was to put all others,—barrels, wagons, boats, tank cars, and what-not—in the background.

As Rod talked on, the older man grew more and more interested.

"A pipe line from here to Blacksburg seems a great undertaking. But some day we'll have 'em from here to New York—to Chicago—to the Gulf of Mexico, even," he finished grandly.

Barbour leaned forward, his eyes dark and compelling. "This is only a dream to you now, but it can be made to come true. And it will bring riches unthinkable to the ones who do make it true. With your ideas and my money to back you, we could put it across. How would you like me for a partner?"

CHAPTER XXV

BIG JOHN

"I'd like it fine," Rod responded instantly. "Dad—Granny—they'd like it too, I know. But you'd have to talk to them about that."

The other smiled. "I believe they'll see things the same as you and I. It ought to mean money in the pocket for all of us."

When Roderick McDougal left the hotel, his head was in a whirl. With the immense Barbour wealth to back him, what could he not do? Buying out Will Graham had crippled the finances of the Indian Oil Company considerably, but this new arrangement would set it on its feet again. And the Colonel had taken to all his schemes, the angling for foreign orders, the pipe line—

Rod's brow clouded. There'd be money now to put the pipe line through, but he hated to think of the trouble, the ill-will that so doing would stir up. Already he had made an enemy of old Mr. Conley, and Big John Smith and the other teamsters had twice destroyed his work.

Of course, with unlimited resources to back him, he could rush the job through under armed guard, and keep the line patrolled forever after, and bring legal punishment to any who tried to do it harm. But managing things that way would bring strife and unhappiness to the whole countryside. It would be worse than living on top of a volcano, expecting an explosion any minute.

So Rod's thoughts were jumbled, exuberant happiness and worry mingled, as he walked home through the gathering dusk. Frederick Barbour had offered to send him in the car, but Rod had preferred to walk, wanting to be alone for a little while to get some things settled in his mind before he broke the news to the family.

Going down the steep hill that led to the river landing, the boy was aroused from his reverie by sudden yells and the sound of a team and wagon rushing down upon him. He gave a leap sideways, and barely escaped being knocked over by a pair of frightened horses dragging an overturned and broken oil wagon after them.

As the runaway team dashed madly on and came to a sudden halt in the shallow river, Rod heard a groan from the side of the road behind him.

Someone was hurt. It had all happened so quickly he hadn't had time to think of the driver, but now he turned and ran back up the hill.

A deep ditch bordered the left side of the road. Recent rains had enlarged it into a jagged gully. Here the wagon had bounced and overturned, and here Rod found Big John Smith flat on his back, with the load of oil barrels heaped on him.

"Oh, my leg,—my leg,—it's broke for sure!" the man muttered thickly. "Git that barrel off,—help me, somebody!"

"I'm here! I'll get you out!" Rod slid down into the ditch, and began tugging at the barrels, trying to lift or roll them off.

"Git that un off my stummick first! It's making me flatter than a rug. Oh-oo! Them plaguey horses, shying at a scrap of paper—I'll fix 'em, throwing me out like this—"

As Rod flung off a barrel, Big John raised his head and saw who his rescuer was. "Devil take me!" he grunted. "You—you here helping me!"

"Sure! Didn't think—I'd—leave you—like—this?" Rod got out in jerks, as he strained at the last barrel. "Here, draw up your feet when I lift. This one's wedged,—can't throw it off."

The man gave a tremendous wriggle and pulled himself free.

"Any bones broken?" Rod knelt beside him and ran a hand over ankle and shins.

"I guess not." Big John struggled to his feet. "But I thought they was all broke up when them barrels were sitting on 'em. Good gosh!" he groaned, and sat down hurriedly on one of the offending barrels. "It sure hurts to move 'em, though."

"Stay here and I'll get your horses."

When Rod reached the river bank he found the wagon pretty badly demolished, but still able to roll, and when he had quieted the team, he drove back to where Big John was sitting. Though no bones were broken, the man was sore and lame, so Rod said he'd drive him on home.

Both were silent as they sat side by side on the spring seat. Big John was hunched over, holding his head in his hands, as if to avoid conversation, and to hide the shamed look in his eyes. Rod was busy with his own thoughts. He felt disappointed, baffled. When he had first seen who it was that he was helping, he had felt a moment's elation: perhaps this was his chance to win Big John's good will, and through him that of the other teamsters, for they followed his lead like sheep. But now he

was sure he could hope for no such turn of affairs. The man hated him. His sullenness showed that. He hadn't even thanked him for being pulled out of the ditch. Well, he'd take him home and leave him in safe hands,—his conscience would be clear then. And perhaps he could get his pipe line down even if the teamsters did stir up trouble.

But as he drew up before Big John's house, the man turned to him awkwardly. "I been thinking we done you mighty mean," he said in a low voice. "Hauling oil in barrels ain't the only kind of work we can do. Go on with what you was doing,—there won't be no more rowdies tearing up your pipes."

"I'm looking for a hard worker to be foreman of a gang. Reckon you'd take the job?" Rod grinned and held out his hand.

"Who—me?" Big John's hairy paw closed over his. "Say, man, I bet if I talked to Uncle Sam Conley, he'd let them pipes go straight through his 'tater patch. Good gosh, but that'd sure cut out a lot of work for us!"

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To Roderick McDougal the next few years brought hard work, but they also brought that happiness that only comes through succeeding in one's chosen line. Through his labor and foresight, the Indian Oil Company

had risen from its modest beginning to a commanding position in the industrial world. That first big gusher on Rainbow River had been surpassed by hundreds of others in his oil fields scattered from Pennsylvania to Texas, from Oklahoma to California. And that first experimental pipe line from Petrolton to Blacksburg had expanded into giant trunk lines that spanned the continent, with smaller branches tapping every field and bringing oil direct to every city.

On the wave of this sea of oil, Rod had been swept to wealth and also those who had toiled with him—his father, Colonel Barbour, Bert Dowling, George Oliver. Even Little Joe, who had once thought he despised petroleum, discovered that after all he had it in his blood, so after he had been ordained a minister, he had returned to the valley to bring the gospel of love and salvation to the oil workers.

As Granny grew old, surrounded by every luxury Rod's wealth could buy, she often smiled to think how true had been her prophecy as she stood by her grandson's first kettle-still and said, "I ken ye'll be making something o' this ile yet."

AFTERWORD

OIL EMPIRE

In the brief span of seventy years (the first oil well was drilled in 1859) the despised Rock Oil of the salt makers has risen to be the economic and military prize of nations, for petroleum now turns the wheels of the world. As in past centuries England, France, Spain raced their galleons and caravels for possession of the gold of the New World, they now race for possession of its oil. Rival prospectors roam every quarter of the globe, rival tankers ply every sea, rival pipe lines thread the continent with hundreds upon thousands of miles of pipe, to supply us with our necessary gasoline, lubricating oils, illuminating oils, and the many by-products of petroleum.

The struggle of the early producers to create markets, to keep the demand for oil anywhere near the possibilities of its production, is a thing of the past. The struggle now is to get enough oil to supply the demand. The

perfection and widespread use of the gasoline engine has created a market for oil that is almost limitless. Without gasoline, millions of automobiles, pleasure cars, motor buses, trucks would stand paralyzed. Without gasoline the flight of the airplane would be cut short. Without heavy oils, almost half of the world's shipping would have to go back to the dirty, toilsome use of coal; and thousands of stokers, dripping with sweat and grime, would again have to bend over their scorching fires.

"He who owns the oil controls the world," wrote a French statesman, "for he will control the sea by heavy oils, the air by highly refined oils, and the land by gasoline and illuminating oils. Besides, he will rule financially by means of the fantastic wealth derived from oil, a substance more sought after and more precious today than gold itself."

"In case of war," prophesied an Englishman, "armies, navies, even entire populations will count as nothing against the lack of oil."

From the gallon or two of oil laboriously dipped by hand from a spring; from the first crude kettle-stills; from the shallow wells put down by spring-pole and man-power; from the transportation by wagon or pond freshet; from the market flooded by a few thousand barrels; from the vision of the few ridiculed

by the many; from all this it is a far cry to the comforts and luxuries petroleum has put into our homes and lives today. To those first intrepid pioneers, men who had eyes that saw into the future, and hands that worked to make reality of what they saw, we owe the splendor and glory of our far-flung Oil Empire.